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A REVISION OF HISTORY.

As no criticism has been made on the proposals set out a year ago, to free the Egyptian records from the assumption of a single kalendar having been in use, and to recognize that at least two kalendars were common, it seems time now to enter on a general revision of all the historical material which we possess. This is the more urgent as Egypt is the measuring line for all other early history, in Palestine, Anatolia, and Greece; to have a settled scale for it is therefore essential.

In the article on "The Age of Egypt" (*Ancient Egypt* 1929, p. 33) the four different kinds of kalendar named on the monuments were set out, and the true nature of them discussed. It is not needful therefore to enter on that subject again.

The cardinal document, on which all German chronology has been based for thirty years past, is the statement on a papyrus from Kahun, that the rising of Sirius was on the 227th day of the year in the reign of Senusert III. On the assumption that the count of the months was on the wandering kalendar of 365 days, this document would place the end of the xiith dynasty at 1786 B.C. or at 3246 B.C. if the year began with Thoth, or at 1906 or 3366 if it began with Mesore. This reckoning left therefore 201 or 321 years by Thoth or Mesore (or else 1661 or 1781 years), for the interval between the xiith and xviiiith dynasties. The shorter periods are entirely impossible in view of the monuments remaining, and of the whole of the historical MSS. The longer period is equally difficult in view of the contemporary remains in other lands; but as the Egyptians accepted it, it was the more possible framework for storing the facts.

All of this position depended on which kalendar had been used in this papyrus. The seasonal kalendar, 365·25 days, was commonly in use for agriculture, as it is now in Egypt. If the Kahun papyrus were dated in this kalendar (beginning in mid-winter) no difficulty remains, as it does not fix anything about the epoch. The Egyptians seem to have been using the year beginning with the month Mesore, while the year beginning with Thoth was nearest to mid-winter, and soon superseded the older count. This retrogression of the nominal months would point to the use of a kalendar of $365\frac{1}{5}$ day, or a day inserted every fifth year. This would cause a retrogression of a month in seven centuries.

By accepting the dating on the seasonal year of $365\frac{1}{4}$, or $\frac{1}{5}$, days, it becomes at once possible to accept the recorded dynastic periods, and to place the monuments in a reasonable scale of time.

The principles which we must follow for a sane view of the many authorities are:—

- (1) That of two readings the one which agrees with other facts is to be preferred to one which is discordant.
- (2) That we must compare all relevant documents before rejecting any.
- (3) That we should only reject a datum when it is contradicted by a stronger one.

As examples of the failure to observe such critical rules we may note:—

- (1) The wilful quoting of the viith dynasty as 70 kings in 70 days (an absurd corruption in Africanus) instead of 5 kings in 75 years (the Armenian version of Eusebius).
- (2) The ignoring of over thirty Hyksos names (out of 38 stated total) when asserting that “100 years is ample for the Hyksos,” though the recorded reigns of four of them cover more than two centuries.
- (3) The rejection of all the MS. records in order to accept one kalendar, rather than another which was known to have been in use.

After such methods of dealing with the subject by German writers and their imitators, it is certainly time that we took up a revision of the whole material in view of the concordant kalendar.

To review the chronology we should start from the earliest datum which is universally accepted, and which is in accord with the history of other lands. This is the statement of the rising of Sirius on the 9th day of Epiphi in the 9th year of Amenhetep I. This, on the year beginning with Thoth, gives a date of 1549 ± 1 B.C. with the 365 day year; if on the Mesore year it would be 1669 B.C., or if on the seasonal year it would bring the new year to the close of August; neither of these would be compatible with other data. We must therefore read this as being on the Thoth year of 365 days. This, with the recorded reigns, places the beginning of the xviiith dynasty at 1583 ± 1 B.C. With the new fact before us, shown by the Hyksos scarabs, that the Hyksos rule began directly at the close of the xiiith dynasty, the period between that and the xviiith dynasty is resolved thus:—

Egyptian	B.C.	B.C.	Hyksos
	2371	2371	
60 kings xiii dyn.	453	260	6 kings xv dyn.
	1918	2111	
76 kings xiv dyn.	184	518	32 kings xvi dyn.
	1734	1593	
43 kings xvii dyn.	151	10?	Kames
	1583	1583	

These periods have some various readings as xiv 484 (Eusebius) which is less likely than 184 (Africanus); for xv 284 (Africanus) which is worse preserved than 260, Josephus. The xv–xviiith are certainly confused in Eusebius, so Africanus is the only authority to follow. The result—quite unsuspected till now—is that the Egyptian and the Hyksos series agree in length, and this is therefore in favour of such a position representing the truth.

The monuments substantiate such a scale of history. The Turin papyrus has a division after No. 55, and a total of about 140 kings here. This supports the division at 60 and a total of 136 kings, considering the very broken state of the papyrus. The average length of reign of 11 kings of the xiiith, known

from the Turin papyrus and monuments, is 8 years; the average of reigns in the xiiith dynasty of Manetho is $7\frac{1}{2}$ years. The number of kings and the length of time are thus substantiated. Looking at the examples of kings' names on known objects, there are 16 within the first half of the xiiith dynasty. After that, and in the xivth, the broken state of the list only leaves a dozen names identifiable on objects. But beside the legitimate dynasty of the lists, there was also a rival line at Edfu, to which monuments of 19 kings may be assigned, as the work and names are like those of the xiiith. Considering the distracted state of the land, and the obvious poverty of work, there is quite as much monumental connection as could be expected.



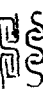
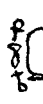


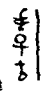
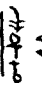



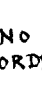
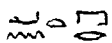
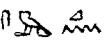
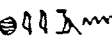
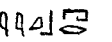
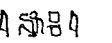
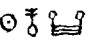
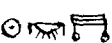
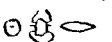
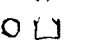
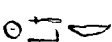



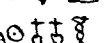
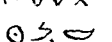
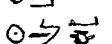
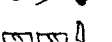
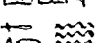
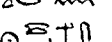
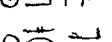

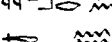



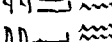
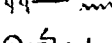

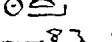
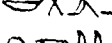
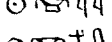

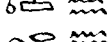
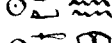

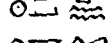
In the xvith dynasty a different style of small scarabs comes into use, without any border to the name, leading on to the style of the xviiith. There are about 20 names on such scarabs, besides half as many names with *nub*; all of these are probably due to the 43 kings of the xvith, of whom there is no list. That such kings were known later is seen by a reference in the xxth dynasty to a king Ra-men-hetep succeeding Ra-hetep; a scarab, lately found, of Ra-men-hetep belongs to the small and meagre style of those of Ra-hetep. The puzzling group of Antef coffins also seem to come in the xvith, by their links with the style of the xviiith.

To place all this material in order may be impossible until some lists are discovered, but it at least represents an amount of activity which corresponds with the number of kings stated in the list. The last four kings of the xvith are well represented by named objects, probably occupying the last half century before the expulsion of the Hyksos.

Turning to the foreign side, the series of Hyksos names now amount to 36, to substantiate the claim of there being 38 kings in the xvth and xvith dynasties. These scarabs have various styles of borders and of work, which serve for their classification, as shown in the table here and in the designs in *Beth-pelet* I (see next page).

The first five names may belong to the xvth dynasty, as the scarabs are of much better work than others. Apepa I is clearly Apophis, the fourth king in the list of Josephus, and Khyan is probably Siaan (or Sta'an) otherwise without the guttural as Ionias. It seems unlikely that Shesha, halfway down, can be Assis of the xvth, as he used the most degraded type of line border. The determinative of three water-lines, *mu*, which accompanies seven names, would agree to their being sea-farers, which is implied in the title of the xvith dynasty "Hellenic shepherds kings," as Hellene is the regular equivalent of maritime *Ha nebu* "lords of the north." The xvth dynasty is correctly named from Phoenicia, whence it entered Egypt. Khyan took the title of "embracing territories," and his work is found in Crete and in Baghdad, where wide trade may have carried it.

The doubt as to how far the Hyksos held the Delta as well as Palestine, or whether they were only co-temporary petty princes, has been set aside by finding, late in the degradation in Palestine, a scarab of the Treasurer Ha-al; it was clearly not made in Egypt, as the forms of three signs differ from all the Egyptian examples. There are many scarabs of his from Egypt, a dozen in University College, but the Palestine example proves that he acted in both lands, and therefore the Hyksos rule was united till at least far on in the xvith dynasty.

													NO BORDER
ANTHER		1											1
SEM QEN		1	1										
KHYAN		2	3	..	1	..							7
YAQEB-HER		..	4	..	1	..							2
APEPA I		...	2	...	1	3							2
NEFER-KA-RA		.	.	.	.	1							
NUB-KA-RA		..	1										
KHEPER-RA		...	1	...	1								
KA-RA		.	.	.	.	1							
OA-NEB-RA		..	..	..	..	2							
UAZED		...	1	...	1	...							2
SEKT		.	1	.	1								
SMA-KA-RA		..	..	..	1								
NEFERUI-VAH-RA		...	...	...	1								
MAOT-NEB-RA		.	1										
MAOT-AB-RA		..	1	2	8	..							7 2
SHESHA		...	5	2	3	...							4 3 2
OAQER MU		.	.	.	1								
KHO-USER-RA		..	1	..	1	..							1 6
SKHONE-RA		...	..	...	...	...							7 4
YKEB-AL		.	.	.	.	.							8 1 1
OA		..	..	..	1	..							3 5 1
OAHEP-RA		..	..	..	..	..							1 1 1 1
QAR		.	.	.	.	.							1
YKHO		..	..	..	..	..							1
YO		...	...	...	...	...							1 4
MAO-RA		.	.	.	.	..							1
KHO-RA		..	..	..	..	..							2
NEB-VAH-AB		..	..	...	...	...							1
NUBY-RA		.	.	.	.	.							1
NUB-USER-RA		..	..	..	..	..							1
NEFERGERG		...	...	...	...	...							1
ER DU-RA		.	.	.	.	.							1
QASEH-RA													
APEPA II													
APEPA III													

OBELISK

ALTAR

We have now substantiated the dynastic lists by showing that the scale of them is fully in accord with the Turin papyrus and the contemporary monuments, and that there are more remains than might have been expected from a period of decay and foreign invasion: we can see how fruitless it would be to accept the Berlin dictum on the Hyksos periods, "That these numbers are historically absolutely worthless in obviously plain."

This has led us back to the close of the xiith dynasty, and we come to a period which is perhaps more full of detailed dating than any other. The co-regencies are double-dated, and private monuments often bear a royal date.

Strictly speaking the Egyptians did not recognize Amenemhat I as belonging to the xiith dynasty. He was a vezier of the old fellah stock, who took over the kingdom and ran it, marrying the heiress of the Uahka princes of Qau, of Galla ancestry; his son therefore began a new dynasty of the Uahka family. Amenemhat is placed as a mere appendix to the xith dynasty by Manetho, and the xiith is begun by Senusert.

The Turin papyrus is in a fair state here.

	Turin	up to co-regent	highest date	Africanus	Eusebius
Amenemhat I	29	20	30	16	<u>XI</u> 16
Senusert I	45	42	45	46	46
Amenemhat II	30 +	32	35	38	38
Senusert II	19	19	19		
Senusert III	30 +	38	33	48	48
Amenemhat III	40 +	48	46	48	
Amenemhat IV	9. 3. 27	13	10?	8	42
Sebek nefru	3. 10. 24			8	
			3?	8	
				4	
Sum stated	<u>213. 1. 17</u>	<u>212</u>	<u>221</u>	<u>160</u>	<u>198</u>

Three reigns are incompletely dated in T.P. The Greek lists are good in detail, but defective. The total in the Turin papyrus is the best authority. This fixes the xiith dynasty as being from 2584 to 2371 B.C.

A date which has been claimed as having "confirmed beyond a doubt" the German result from the Kahun papyrus, is the flax harvest at El Bersheh in the 113th to 117th days of the year. This is now stated to occur in early April (*B.A.R.* I, 48). If, say, on April 10, the New Year would have been on December 16: as this is only 5 days from the shortest day—the natural New Year—it agrees with the fixed seasonal kalendar, and has therefore no chronological meaning.

For the xith dynasty, though obscure, there is a fair amount of material. The conclusion as to the succession, reached independently by Mr. Winlock and by myself, is as follows, with the details here added:—

	born B.C.	accessed	reigned	died	B.C.
					(2738)
1 Antefa I	2765	at 27		at 45	2720
2 Antefoä II	2743	23	50	73	2670
3 Antef III	2721	51		56	2665

	born B.C.	accessed	reigned	died	B.C.
4 Mentuhetep I	2699	at 34	14 +	at 49	2650
5 Mentuhetep II	2677	27		32	2645
6 Mentuhetep III	2655	10	46 +	58	2597
7 Mentuhetep IV	2611	14	2 +	18	2593
8 Mentuhetep V	2609	16	8 +	25	2584

The material for this series is (1) the stele of Antefa I; (2) the funeral stele naming 50 years' reign, and steles of two officials naming services under princes 2, 3, 4; (3) no. 5 certainly came between 4 and 6; (4) stele naming 46th year; (5) quarry stele of year 2; (6) Tablet at Hammamat, year 8. The continuity of a family history through the time, on the scale of oriental eldest-son generations of 22 years, gives a framework into which the data can be fitted; the ages of accession and of death seem to be reasonable. Nos. 7 and 8 were brothers.

Though the family must have lasted for about 154 years, yet Manetho states only 43 years for the dynasty. This means that an obscure line of the xth dynasty was regarded as the legitimate order, and only when they were dispossessed by the xith dynasty at 2627 B.C., by the advance of Mentuhetep III, could the xith be regarded as the legitimate line. This is a good instance of the care of Manetho to avoid overlapping dynasties in the history, like the case of Taharqa and Psemtek.

The xth dynasty came to its end then in 2627 B.C., and it is stated to have comprised 19 kings (by Turin papyrus 18 kings, see Borchardt, *Annalen*, p. 45), reigning for 185 years, beginning therefore at 2812 B.C. At about 2700 a general of Antefoâ II fought "the house of Khety," which shows that the xth dynasty was continuing the Khety family of the ixth. The xth cannot have overlapped the ixth, as the Khety family then ranged from Aswan to Memphis, and the last of them is found named at Siut and Memphis. The names remaining of this dynasty, on Turin papyrus frag. 47, are Neferkara, Khety, S..h., Mer..., Sentinen..., H..., and on a scarab Shens-uah-onkh (Brit. Mus.).

The ixth dynasty is stated by Africanus as 19 kings in 409 years, by Eusebius as 4 kings in 100 years. The latter is doubtless correct, the 19 being copied from the xth dynasty. These four kings correspond to four Khety kings known on monuments. The dynasty ruled then from 2912 to 2812 B.C. No trace of the tombs of the ixth and xth dynasties could be found at Heracleopolis.

The viiith dynasty is well set out at Abydos where the list of viiith and viiith kings contains 16 names; of these 4 belong to the viiith, and the last 12 to the viiith. There are various versions,—

Armenian	5 kings in 100 years
Abydos list	12
Castor chronicle	14 140
Africanus	27 146

The 5 kings are probably copied from the viiith dynasty; as Castor agrees best with the Abydos list, that may well be accepted. There are, however, four or five names more of this period, so there may have been scattered material altogether, quoted as 27 kings. Of the kings of this dynasty there are actual remains of no. 1 Khendu, 3 Snefer-onkh-Ra, 4 Sneferka, 6 Raneka, 7 Telulu,

8 Her-nefer-kau, 15? Her-nefer-sa, 16? Khuaqer, 17 Her-nefer-khnum. Accepting, 140 years as the probable duration, the dynasty lasted from 3052 to 2912 B.C.

The viith dynasty is absurdly corrupted in the copy of Africanus, but Eusebius has the reasonable record of 5 kings in 75 years. The names are

	Turin	Abydos	Monuments
1	Neferkara	Neferkara	
2	Neferes	Neferkara Neby	
3	Kaka Ra, Ab	. . .	Pyramid, Saqqara
4	. . .	Zed-ka-Ra Shema	
5			Khua

Neferkara was a very popular name after the centenarian Pepy II, and on some scarabs with symmetric (Syrian) ornament, it is probably of the viith dynasty kings. Of no. 3, Ab, the pyramid has been found at Saqqarah, with the name Kaka Ra. Of no. 5, Khua, the name is in a tomb just after the vith dynasty. There is then no ground for questioning the length of this dynasty, from 3127 to 3052 B.C. These two dynasties vii and viii were clearly of Syrian invaders, many of whom kept their Syrian name along with the Egyptian, as Neferka Ra Khendy, who is figured with a Syrian and an Egyptian vassal.

For the vith dynasty the lists give

	Turin	Abydos	Africanus	Eratosthenes
..6 m. 21 d.	Teta	Othoēs	30	33
. . .	Userkara		[6]	
20 y.	Mery Ra	Phios	53	35
4 y.	Meren Ra	Methousoufis	7	
90+	Neferka Ra	Phiōps	94	100 life
1 y. 1 m.	Meren Ra	Menthesoufis	1	1
	Neteren Ra	Nitokris	12	6
	Menka Ra			
			203	

The Turin papyrus must be wrong about Pepy I, as 37 years are guaranteed by the biennial cattle census. If the figures of Africanus be accepted, the missing reign of Userkaf was of 6 years, and the dynasty is dated to 3330–3127 B.C. The Nitokris of Africanus seems to be the equivalent of Neteren Ra, but Menka Ra is unexplained. There may be some tangle confusing Menkaura + Rhodope of the third pyramid with Menkara + Nitokris who was “most beautiful and ruddy,” but it cannot be unravelled.

The vth dynasty is well preserved in the lists.

	Turin	Abydos	Saqqarah	Africanus	taken
.	kaf 7	Userkaf	Userka	Userkeres 28	8
.	12	Sahu Ra	Sahu Ra	Sephuris 13	13
.		Kakau	Neferarka Ra	Neferkheres 20	20
.	7	Neferef Ra	Shepseska Ra	Sisiris 7	7
. . . . .		. . . . .	Khonefer Ra	Kherēs 20	20
.	30+	Neuser Ra	. . . . .	Rathouris 44	44
Hermenka	8	Hermenkau	Hermenka	Menkheres 9	9
Zeduika Ra	28	Zedka Ra	Maotka Ra	Tankheres 44	28
Unas	30	Unas	Unas	Onnos 33	31
				218	180

Two numbers in Africanus need correction by Turin. The proposal to reduce this total to 140 years, owing to the biography of Ptahshepses, should be examined. He was born under Menkaura, and favoured at court by Shepseskaf. If he were 15 at the death of Shepseskaf, he would be 24 under Imhetep and 92 at the accession of Neuser Ra, to whose pyramid service he was attached. There would be no improbability in his living to 95, like two kings of the iind dynasty and one of the viith. From the position of the Nile flood in the year, Borchardt deduces that the Neferarka Ra acceded between the limits 3460–3120 B.C. Here we reach 3489 for accession, a near enough connexion. The dynasty is dated to 3510–3330 B.C.

The ivth dynasty was complex.

Turin	Abydos	Saqqarah	Africanus	Eratosthenes	Herodotus taken
Snefru 24	Snefru	Snefru	Sōris 29		29
..... 23	Khuf	Khefuf	Soufis 63	Soufis 29	50 63
..... 8	Zedef Ra	Zeduif Ra	Ratoises 25	Rauōsis 13	co.
Khof Ra ..	Khof Ra	Khof Ra	Soufis 66	Saofis 27	56 66
.....	Menkau Ra	.....	Menkheres 63	Moskheres 31	63
.....	.....	.....	Bikheris 22	Biurēs 10	co.
.. 18 or 28	.....	.....	.....	.....	?
4	Shepseskaf	.....	Seberkherēs 7		7
2	.....	.....	Thamphthis 9		9
			stated 284		237

The long reigns stated by Africanus offend some critics, who would see them reduced as in the Turin papyrus or Eratosthenes. The clue to the figures seems to be in a custom of co-regencies. Khufu certainly had a co-regent Khumu-Khuf, the “friend of Khufu,” who was associated far on in the pyramid building, as he is named in the highest construction chamber. He had the Horus name *Neb*...., while Khufu had *Mezer*, and both throne names are placed on one stone, so there certainly were two kings. Khumu-Khuf disappeared, and another associate came in, called Razedef. His name follows that of Khufu on the lists of Abydos and Saqqarah, though Africanus puts him after the three great kings. He also disappears, and if he were associated when Khufu was 50 (see Herodotus), and remained for 13 years (Eratosthenes), he disappeared at the accession of Khof Ra. A parallel to this is seen, when Khof Ra is given 56 years by Herodotus, and then Biurēs comes as co-regent for 10 years (Eratosthenes) to the end of the reign when Menkaura succeeds. Thus the co-regencies were

Khufu alone	23
Khumu-Khuf (27)	50
Razedef	13
Khufu total	63
Khof Ra alone	56
Biurēs	10
Khof Ra total	66

All of these figures, except (27), appear in the sources named above. At least it must be granted that, with two co-regencies, the reign of Khufu must have been a long one.

An argument for the shorter reigns has been drawn from the history of Sekhemka Ra. This is due to the mis-statement that he lived under Khof Ra and Menkau Ra, and on to Sahu Ra. But the list in his tomb only states that he was "devoted," *amakh*, to the kings, a usual form of divine honour to the deceased.¹ Sekhemka Ra may have been born under Menkau Ra, but there is nothing here to determine his age. Another survival needs attention, though not yet quoted in argument. Nesutpu lived under Khof Ra and Sahura; this involves $63 + 7 + 9 + 8$ years, or 87 years, beside some time in the terminal reigns (*Ann. Serv.* xxv, 80). Another such long life is that of Mertitef, who was *ur amt* "greatly loved" of Snefru and Khufu and *amakh* to Khof Ra. If she were 17 at the death of Snefru she would have reached 80 under Khof Ra. All of these long lives which have been carelessly quoted as evidence, without attending to the recorded reigns, prove to be not at all unlikely. The minimum ages required are 92, 87, 80, while kings of the iind dynasty are stated in the Turin papyrus to have lived to 95, 95, 73, 72, 70. There is then not a single objection to raise against the list of probable length of reign for the ivth dynasty, amounting to 237, or from 3747-3510 B.C.

Here may be noticed another datum which has been supposed to shorten the history of these times, though no explanation has yet been provided. At the end of the viith dynasty in the Turin papyrus there are two broken lines of text; the first relates to the number of kings from Menes, and their years; the second is lost, except the number "years 955 days 10 + x." Now the number of years stated by the dynastic reckonings of iv-vii, already discussed and fairly clear, is 695, which would leave only 260 years for the first three dynasties. The whole i-vii dynasties amounts to 1273 years. There is, then, some misunderstanding in applying these figures; they may possible have been the total from the Sudany to the Syrian dynasties, iii-viii, which we reckon as 924 years, but might have been rather longer owing to obscure kings, or counting co-regencies.

We now reach the decisive contemporary document of the Annals. This was a record of the prehistoric kings' names, and of the principal event and the Nile register of every year of dynasties i to iii. It expanded later, and in the dynasties iv and v many events of each year were recorded. The whole document was engraved on both sides of a row of slabs of black quartzose rock, described as "amphibolic diorite," which would be commonly called black basalt. It would be impossible to have one slab nine feet long and only $2\frac{1}{2}$ inches thick: There must have been several divisions. As it would be difficult to have a joint in the middle of a year space, so a whole number of spaces in each row must have been fitted in. This almost compels the width of the slabs to be uniform, in order to get on each slab a whole number of spaces in each row. Hence there is need to have slabs of equal width. According to the existing pieces it would be impossible to have four, five, seven, eight, or nine slabs, so six is the probable number. Each slab would then be about 16 inches wide and 27 inches high. It would weigh about 90 lbs. If these were built

¹ The meaning of *amakh* seems to be *amā* "loving," *ākh* the "spirit," or glorious deceased. The present example of the *amakh* system is in the class of royal widows and their officials, which are left after an African king's death, and continue for long as a guild, by recruiting fresh girls into the service of the spirit, so these might all be called *amakh* or loving the spirit. So long as endowments were not alienated, any such system would form happy sinecures.

up, it is hard to see how they would be held for eight feet length, and be visible on both sides. It is possible that they were kept stored on edge on a shelf, and taken down for reference.

Unhappily these are only known parts of two slabs, broken all round, and mostly worn away, as door sills in late buildings: four small fragments only suggest, by the coarseness of engraving of Khufu, that the Annals were perhaps first engraved by Seneferu, and added to down to the earlier half of the vth dynasty.

The slabs are published by Schäfer, *Ein Bruchstück altägyptischer Annalen* Abh. d. Kön. Pr. Akad. d. Wiss., Berlin 1902, and *Le Musée Égyptien* vol. iii, pls. xxiv-xxxi, Cairo 1915; discussed by Borchardt, *Die Annalen . . . des Alten Reiches*, Berlin 1917.

On the front of the slabs were engraved (1) a row of prehistoric kings of Upper and Lower Egypt, perhaps also figures of the mythical and divine dynasties; (2) a row of yearly divisions belonging to the first dynasty as far as king Aha; (3) a row naming Semerkhet and completing the 1st dynasty; (4) a row of the iind dynasty naming Neteren (Mu-nutri); (5) a row including Khosekhemui, the close of the iind dynasty; (6) a row ending the iiird dynasty and beginning the ivth with Snefru; (7) a row of the ivth dynasty naming Khufu. On the back were much more diffuse records of the end of the ivth and three or four kings of the vth dynasty.

The problems of the relations of the pieces cannot yet be completely settled owing to insufficient data. The proposed restoration by Prof. Borchardt (1917) is probably just, within a few years, and may be taken as the best approximation. The compulsory division—if equal slabs—into 3 or 6 parts, would make it needful to avoid a joint cutting a year-space; there must have been a whole number of year-spaces in each slab. The total number in each row must have been a multiple of six.

Borchardt	+ 2	each slab
184	186	31
112	114	19
136	138	23
166	168	28
130	132	22

That each of Borchardt's numbers is 2 less than a multiple of six, indicates that the series contained two more in each row. This shows what is the intended relation of the numbers of the sections.

Altogether three variations have been proposed, (A) *Ancient Egypt* 1916, (B) Borchardt 1917, (W) Weigall 1925. The most direct test of these is at the iiird dynasty, where the Turin papyrus gives continuous lengths of reigns, as follow, from two reigns at the end of the iind up to the end of the iiird dynasty, in years and months.

	x, 8.3, 11.8 or 21 or 31	27.2, 19 19.3	6, 6, 24	T.P.
by B.	57	29 9? 16	37	Annals
by A.		37		

W. makes here entirely arbitrary changes in the scales of years without any evidence, and therefore cannot be accepted if other solutions fit. The A scale

	CAIRO	PALERMO					3 IN EACH SLAB		
					T I T L E ?				
	A H A = A T H O T H I S				N A R M E R = M E N A ←		4326 A.C.		
							19		
	Q A = Q E B H	SEMERKHT	A Z A M E R B	B = A P E N	D E N =	H E S E P T I Z E T = A T A	Z E R = A T E T H	4212	
							23		
	S E N D	P E R A B S E N	N E T E R E N		K A K A U		B E Z A U	4078	
							28		
	Z E S E R	N E B K A	S A N E K H T		H E Z E F A	ISEKERI NEFERI KARA I	N E F E R K A R A	3913	
							22		
					S E	N E F E R U	H U N I	----- Z E S E R I Z E F A T E T A	3784
					U.C.				
					8477	6 5 4 3	2 1		

PLAN OF THE ANNALS OF DYNASTIES I-III.

This is about a half of the height on the stone, and about one ninth of the length, here compressed for convenience. Each compartment represents one year. The names of kings are over their compartments. The top line was of prehistoric kings of north and south, one in each compartment. The outlines of the two remaining pieces, in Cairo and Palermo, are drawn.

The whole length is here divided into 6 equal slabs, which would be about 90 lbs. weight each. Division into 4, 5, 7 or 8 equal parts is impossible, by the existing slabs. The six slabs would be nearly square. The number of compartments on each line of a slab is stated at the right hand. The unfixed divisions between reigns are in broken line. The numbers placed in some compartments are those of the biennial cattle census, which indicate the beginning of a reign, though lost.

would not leave enough room for later reigns before Snefru. The B scale fits fairly well, if there be co-regent reckonings in T. P. giving 19 years in place of 9 for Nebka in the Annals, and 19 in place of 16 for Zeser. There seems to be good ground for a short reign for Nebka, as a few years would suffice for all the rock cutting and granite work prepared for his tomb; so the 8½ years, supposed to be indicated very faintly on the Annals, would fit better than 19 years of the papyrus. The 19 years stated for Zeser suggests that Nebka might have had less than 9 years.

Having now reviewed the Annals as a whole, we can proceed with the iird dynasty. If the scale of the fragment of Snefru is projected backward, it would leave a space equal to 37 divisions of row 5 above. If row 6 up to the end of the iird dynasty was like row 5, then 37 years would be in this line. Now after Zeser there are reigns of Zeserteta 6, ... zefa 6, Huni 24 years, or 36 in all. So this accords well. The whole material is then:—

Annals	Turin	Abydos	Saqqarah	Monuments	Africanus	
30	27 Bebti	Zazay	Beby	Sanekht		
27	{ 19 Nebka	Nebka		Nebka-Ra	Nekherōfēs	28
	{ 19 Zeser	Zesersa	Zeser	Zeser	Tosorthros	29
				repetitions	Turis	7
					Mesōkhris	17
					Soufis	16
36	{ 6 Zeserti	Teta	Zeserteta	Zeserteta	Tosertasis	19
	{ 6 ... zefa	Sezes	.....	.....	Akhes	42
	{ .....	.....	.....	.....	Sēfouris	30
	{ 24 Huni	Neferka Ra	Heni	.....	Kerferēs	26
<hr/> 93 - x						<hr/> 214

The total length on the Annals is here stated, from which two or three years might be deducted for divided years. This extends then from 3838-3747 B.C.

The material for the iind dynasty is as follows:—

Annals	Turin	Abydos	Saqqarah	Monuments	Africanus	
82	{	Bezau	Neterbau	Hetepsekhemui	Boethos	38
	{ Kaka	Kakau	Kakau	Raneb	Kaiekhōs	39
48	..neteren	Banetern	Banetern	Neterenra	Binothris	47
37	{	Uaznes	Uaznes	Perabsen	Tlas	19
	{ Send	Senda	Send	Send	Sethenēs	41
					Khairēs	17
58	{ .50 Neferka		Neferkara		Neferkherēs	25
	{ 8.3 Neferkaseker		Sekerneferkara	Khosekhem?	Sisōkhris	48
17	11.8 Hezefa		Huzefa	Khosekhemui	Khenerēs	30
<hr/> 243 - x						<hr/> 304

It does not seem possible to accept other than the reckoning of the Annals, though there is a grave discrepancy in Hezefa reigning 11 years 8 months, and Khosekhemui undoubtedly 16 or 17 years. It seems impossible to avoid the acceptance of Hezefa as this king, so there must have been a long co-regency. The dynasty lasted from 4078-3838 B.C.

For the 1st dynasty the material is more concordant.

Annals		Turin	Abydos	Monuments	Africanus	Eusebius	
.....	61	Mena	Mena	Narmer	Mēnēs	62	62
.....	53	At	Teta	Aha	Athōthis	52	27
Athet	101	.....	Ateth	Zer	Kenkenes	31	39
.....		.. āa	Atā	Zet	Onenefēs	23	42
.....		Hesepti	Hesepti	Den	Ousafaidos	20	20
.....		Merbapen	Merbapen	Azab	Miebedos	26	26
Semerkheth	8	.....	Shemsu	Semerkheth	Semempses	18	18
.....	28	... bh	Qebh	Qa	Biēnekhes	26	26
		252 - x				263	260

With the exception of the 10 years less of Semerkheth in the Annals, there is as close an agreement as can be expected, looking at the uncertainty of a divided or double compartment at the junction of reigns, or of different reckoning of the odd months in the Greek version. The reigns of Kenkenes to Miebedos total 100 compared with 101 spaces in the Annals. The dynasty was from 4326-4078 B.C.

A subject which has been hitherto neglected is that of the total ages of some kings as recorded in the Turin papyrus. Having the total age, and the accession and death dates, the life history can be put together as follows:—

	birth B.C.	age	accession B.C.	reign	age	death B.C.
{ Merbapen	4185	58	4127	15	73	4112
{ Semerkheth	4176	64	4112	8	72	4104
Qebh	4141	37	4104	26	63	4078
Neterbau	4135	57	4078	38	95	4040
Neteren	4042	43	3999	52	95	3947
Perabsen	3998	59	3947	11	70	3928
Neferka	3933	20	3913	50	70	3863
{ Neferkaseker	3880	17	3863	8	25	3855
{ Hezefa	3872	17	3855	17	34	3838
Bebti	3854	16	3838	29	45?	3809

The bracketed names point to accession of brothers. The ages of these kings 95, 95, 73, 72, 70 confirm the probability of the long ages of officials, noted before.

As the kings of the first dynasty are stated to be descended father to son, the average reign points to a late age at the birth of the succeeding son. This seems connected with some such system as that of the Mazai tribe of Kenya at present. The young men have a wandering period, then 9 years as junior warriors, then perhaps as long as senior warriors; it is not till near 40 that they become elders, and for the first time form a continuous marriage, for as warriors they only have temporary connections. In such a system it would be natural that an heir was necessarily the child of the continuous marriage, and thus a father to son unit of nearly 40 years might be the line of succession, and result in a late age of accession.

We can now finally sum up the whole of the dynasties in order.

I. Mena	61	4326 B.C.	II. Bezau	38	4078
Aha	53	4265	Kakau	41	4040
Zer	31	4212	Baneteren	52	3999
Zet	23	4181	Uaznes	19	3947
Den	30	4158	Senda	15	3928
Azab	16	4128	Neferkara	50	3913
Semerkheth	8	4112	Seker Neferkara	8	3863
Qa	26	4104	Hezefa	17	3855
	<u>248</u>	4078		<u>240</u>	3838

III. Bebti	29	3838	IV. Sneferu	29	3747
Nebka	6	3809	Khufu	63	3718
Zeser	19	3803	Khofra	66	3655
Zeserti	6	3784	Menkaura	63	3589
Sezes	6	3778	Shepseskaf	7	3526
Heni	25	3772	Imhetep?	9	3519
	<u>91</u>	3747		<u>237</u>	3510

It should be remembered that the six fold division of the Annals requires 2 years more in each of 4 rows, which would add 8 years to the above total.

V. Userkaf	8	3510	VI. Teta	30	3330
Sahura	14	3502	Userkara	12?	3300
Neferkara	20	3488	Pepy I	53	3288
Shepseskara	7	3468	Merenra	7	3235
Khonaferra	20	3461	Pepy II	94	3228
Neusera	44	3441	Merenra	1	3134
Hermenkau	9	3397	Netaqerti	6	3133
Zedkara	28	3388		<u>203</u>	3127
Unas	30	3360			
	<u>180</u>	3330			

VII. Neferkara	3127	VIII. Neferkara Khendu	3052
Neferkara Neby		Hermeren	
Kakara Ab		Snefer-onkh-ra	
Zedkara Shema		Sneferka	
Khua		Nekara	
	<u>75</u>	Neferkara Telulu	
	3052	Herneferka Baura	
		Neferkara Pepysenb	
		Sneferka Onnu	
		...ikaura	
		Neferkaura	
		Herneferka	
		Neferarkara	
			<u>140</u> 2912

IX. Nebkaura Khety I			2912	X. Neferkara			2812
Abmeryra Khety II				Khety			
Uahkara Khety III				S...h...			
Kameryra Khety IV				Mer....			
			100	Sentinen...			
				H....			
				Shens			
				and 12 others			
							185 2627
XI. Antefa I			18? 2738?	XII. Amenemhat I			20 2584
Antefoä II			50 2720	(to co-regency)			
Antef III			5? 2670	Senusert I			45 2564
Mentuhetep I			15 2665	Amenemhat II			35? 2519
" II			5 2650	Senusert II			19 2484
" III			48 2645	Senusert III			33? 2465
" IV			4 2597	Amenemhat III			48? 2432
" V			9 2593	Amenemhat IV			9 2384
			154? 2584	Sebeknefru			4 2375
count of the dynasty begins			2627	stated as			213 2371
Egyptians				Hyksos			
XIII. 60 kings 451 years 2371-1918				XV. 6 kings 260 years 2371-2111			
XIV. 76 kings 184 years 1918-1734				XVI. 32 kings 518 years 2111-1593			
XVII. 43 kings 151 years 1734-1583				Kames 10? years 1593-1583			

On passing from the xviiith dynasty to later times, there are several landmarks which are fairly well fixed, and which need to be set out as dividing the whole period, while passing over the intervening details which are not decisive. The earliest is that dating which we have already used as a starting point for tracing the earlier ages.

- A Amenhetep I year IX in 1549 B.C. ± 1 by Sothis.
- B Tehutmes III, reign 1501-1447 B.C. by new moons.
- C [Amenhetep IV contemporary of Burnaburiash about 1385.]
- D Ramessu I *Menpehra*, = Menophres of 1317 cycle.
- E Ramessu II horoscope of birth 1318 (reign \therefore 1295-1229).
- F Ramessu VI horoscope of birth 1198 (reign \therefore 1153-1148).
- G [Solomon marriage about 950.]
- H [Rehoboam Vth year about 917.]
- J Takelat II XVth year 838 B.C. by Sothis feast.
- K [Pedubast reign including 776 B.C., 1st olympiad.]
- L [Shabaka viceroy acting as king] in 725, before siege of Samaria.]
- M [Taharqa acting as viceroy in 701.]
- N Taharqa defeated by Asshurbanipal, 667.
- O Psamtek I accession 664.

With eight fixed points, and six approximations as checks marked [], the whole later period can be dealt with in sections, and the details of each section spaced out, so as to see the limits of uncertainty of the separate items.

A, B. In the first section Amenhetep I, yr. IX, 1549, to Tehutmes III, yr. I, 1501. 48 years + 8, = 56 years from Amenhetep, yr. I.

Manetho in Josephus		Rearrange	Max. date	
Tethmosis	25 y. 4 m.	Aohmes	13	3
Khebron	13 y.	Amenhetep I	20·7	10
Amenophis	20 y. 7 m.	Tehutmes I	25·4	6
Amesses, sister	21 y. 9 m.	Tehutmes II	12·9	
Mefres	12 y. 9 m.		58·8	

Amesses, the sister, is evidently Hatshepsut, and as her reign was always contemporary with others she does not enter into the total. Looking to the uncertainty of the observation of Sirius (a single day making 4 years' difference), and the two years of doubt either way, there seems no question that the 58 y. 8 m. must be accepted in place of the 56 years already named. The dates therefore must have been

	accession	death
Aohmes I	1573	1560
Amenhetep I	1560	1539
Tahutmes I	1539	1514
Tahutmes II	1514	1501
Tahutmes III	1501	1447

The agreement of the months in Manetho's dates with the official records is set out in *Students' History* II, 60-1. The accuracy shows what was the real character of the history when compiled, before being ruined by copyists.

B, E. The next section is from the accession of Amenhetep II in 1447 to the birth of Ramessu II in 1318 B.C. This last being fixed we can see that, as Sety reigned 23 years, Rameses I must have been about 1320 B.C.

D. Now this date for Ramessu I, Men-peh-ra, is close to the "era of Menophres" of Theon, at the Sothis cycle in 1317 B.C., and that point may well be accepted; this involves that Ramessu II was 23 at his accession.

Having this fresh terminus fixed, we find the filling of the period of probable co-regency of Amenhetep II 1449 to Ramessu I 1318, 129 years in all.

By resulting dates		Manetho	Monuments	
1449	Amenhetep II	26	26	} 70
1423	Tehutmes IV	9 y. 8 m.	8	
1413	Amenhetep III	30 y. 10 m.	36	
1377	Akhenaten 35 y. 5 m.	15 y. 5 m.	17th	} 35 y., amend 15 y.
1361	Smenkh-ka	10 3		
1351	Tutonkhamen	12 3	} 60·6 = 59 by papyrus + x	
1339	Ay (Josephus)	12 5		
1328	Sety-mer-amen	6		
1322	Heremheb	4 2		
1318	end			129 + x

Here the monumental dating of 3 kings amounting to 70 years, and the total of the Aten party and Heremheb as 59 years (called, in bigotry, years of Heremheb)

make up the total required of 129 years. The detail of the 59 years is given by a fragment of Manetho in Theophilus which seems very exact. But for Akhenaten the reading should be 15 years 5 m. which with a fraction at the beginning might come to the 17th year: 10, 20, and 30 are easily confounded in hieratic. The difference of the total 60 y. 6 m. from 59 may be accounted by some small overlap of reigns, or by the papyrus with 59 having been written a year before the death of Heremheb. The king Sety-mer-amen has not been found on monuments, but he may have been some tool whom Heremheb used for his own ends, and then discarded.

E, F. The course of Ramesside history ran as follows:—

Ramessu I	began 1318
Sety I (22 years)	1317
Ramessu II	1295 for 66 years' reign
Merneptah	1229

Ramessu VI was born 1198 B.C.: he was the fifth son of Ramessu III, and presumably reigned at about 1160; so there are about 68 years to be filled after Ramessu II. The amounts recorded are

Josephus	highest
Merneptah 19·6	8 +
Sety II	5 ?
Amenmessu	1 ?
Tausert and Siptah	7
Arisu	1 ?
Setnekht	1
Ramessu III	32
" IV	8
" V	4
	<hr/> 76

The total cannot be less than this, if we accept Merneptah as 19 y. and allow for portions of years counted in dating. Accepting 76 years the series would be

Merneptah	began 1229 B.C.
Sety II	1210
Amenmessu	1205
Tausert	1204
Arisu	1197
Setnekht	1196
Ramessu III	1195 at 22 y.
" IV	1163
" V	1157
" VI	1153 at 45 y.

Manetho states that in Tausert's reign (1204–1197) was the siege of Troy, and Eusebius more precisely sets the taking of Troy to her last year, 1197. This great landmark of early Greek history was thus accepted when the

chronicle was written, though variously dated by Greek authors between 1209 and 1171, even after excluding the extremes.

F, J. From Ramessu VI at 1153 to 1148(?) B.C., there were 310 years to 838 B.C., the Sothis festival in the xvth year of Takelat II, or 296 years to Takelat y. 1.

The later Ramessides were all children of Ramessu III; they are so figured and listed, and the names in the list of sons of R. III agree in order with the same names of the kings down to R. XII. The series given (*Stud. Hist.* II, 140) can now be amended by further details as follows:—

	born B.C.	age	accession B.C.	age	death B.C.	reign	latest dating
Ramessu III	1224	29	1195	61	1163	32	32
IV	1200	37	1163	43	1157	6	6
(son) V	1178	21	1157	45	1153	4	4
VI	1198	45	1153	53	1145	8	?
VII	1194	49	1145	56	1138	7	7
VIII	1190	53	1138	53	1137	?	0
IX	1186	49	1137	49	1137	?	0
X	1182	45	1137	64	1118	19	19
XI	1176	58	1118	64	1112	6	6
XII	1170	58	1112	87	1083	27	28

There is no improbability in such a family history, Ramessu III being 54 when his last son was born, and that son living to 87; both ages are well within the precedents in other times.

The xxist dynasty was a double line, the High Priests of Thebes (descended from the heiress of Ramessu VI), and a new family in the Delta at Tanis and Memphis, deriving probably from a Ramesside daughter and from one of the multitude of "sons of Ramessu" who are often mentioned. Breasted treats this dynasty as a mixture, supposing (with Daressy) that Pinezem I of Thebes was adopted in the Tanite line, which he accepts as the standard. This is based on the royal titles claimed at Thebes, while dating mummy wrappings in the priestly line; but it might be due to a separation of the functions at Thebes, and there are no monuments of Pinezem or any other Theban north of Abydos.

The Theban line is the better known, as the multitude of inscribed objects gives a large amount of detail. The dates are often double, in both the royal and priestly lines. The ranges of double dates are set out by Breasted, (*B. A. R.* IV, 296), and the cautions as to the meaning of the dates, discussed in *Stud. Hist.* III, 191; the genealogy at p. 189.

The contact with the xxiind dynasty is given by Sheshenq I marrying Karamat daughter of Hor Pasebkhanu last king of Tanis. The yr. xv of Takelat II being fixed to 838, the reigns of intervening kings bring the beginning of Sheshenq I to 948 or 940 B.C. by different ways of reckoning the co-regencies.

H. A check on this is the date of Solomon, placed to 960–921 by Assyrian synchronisms (Levy). B.C. 921 = 1 Rehoboam, \therefore v = 917, = xx Sheshenq I, \therefore s. 1 = 936 B.C. This favours the 940 B.C. reached above, which results from taking the reign as from the end of the previous co-regency until the death of each king. The date 948 is from the less likely method of dating up to a succeeding co-regency. Having then the 1st year of Sheshenq at 940 B.C., Usarken's death at 895 suggests that the junction of generations came thus:—

Hor Pasebkhanu	born 1018	(high priest list)	Sheshenq I
Karamat daur.	born 990	(when P. 28)	born 1000?
.. married	970	(at 20)	married at 30
Usarken	born 968		succeeded at 60
.. died	895	(at 73)	died at 81

For a political marriage, doubtless a young daughter of the king would be fitting for the general Sheshenq, an adventurer.

G. Another connection may be noticed; Solomon reigned at 960-921 (see above); he married a sister of Karamat at about his year V, 955, long before finishing the temple and palace. In his year V, Pasebkhanu's younger daughter whom he married would have been born 975, when the father was 43. This link seems also quite reasonable.

Thus the xxist dynasty with all its uncertainties is secured at both ends. At the rise of the Tanite succession it presumably begins at the death of Ramessu XII, 1083 B.C., as Nesibanebdadu of Tanis gives orders for the repair of Karnak; Herhor must have taken over very soon, as he would have been already about 73 at the death of Ramessu XII. At the end of the xxist the Tanite links on to Sheshenq, as general and son-in-law of the Tanite, to take over affairs. Between these links we have to see how the two lines of rulers are best placed, in 143 years, 1083 to 940 B.C.

Manetho		Monuments	highest	adopt.	begin B.C.
Smendes	26	Nesibanebdadu		26	1083
Psusenes	46	Pasebkhanu I	17	46	1057
Neferkheres	4	?		4	1011
Amenofthis	9	Amenemapt		15?	1007
Osochor	6	?			
Psinaches	9	Si-amen	17	17	992
Psousennes	35	Hor Pasebkhanu		35	975
				143	940

The total can best be adjusted at the reign of Amenemapt. The 49 years that have been claimed for him by another writer, probably refer to dating under Menkheperra the Theban. On a basis of 24-year generations, this dynasty works out as having accessions from 18 to 52 and deaths at 42 to 76.

At Thebes the line began by action of Nesibanebdadu of Tanis, but that must have been brief, as Herhor was about 73 (by the genealogy) and he had still 6 years to reign.

	birth B.C.	accession age	B.C.	reign	death age	B.C.	highest date
Nesibanebdadu			1083	5?		1078?	
Herhor	1156	78	1078	6	84	1072	6
Piankh, son	1134			0			
Pinezem I	1112	40	1072	25*	65	1047	
Menkheperra	1086	39	1047	49	88	998	49
Pinezem II	1040	42	998	22	64	976	22
Pasebkhanu	1018	42	976	36*	78	940	12

Any further definition by year dates may easily shift over some years here marked *, as these are only made up to agree with the known total and harmonize the life dates.

J, O. The next stage of history is from Takelat II, 838 B.C. to the accession of Psemtek I, 664 B.C. We have already laid out the earlier part of the xxiind dynasty. Taking the interval between the earliest and the latest years recorded in each reign, the total is 190; no doubt this should be extended, but not greatly, in view of the later terminus. The fixed point by Sothis feast is under Takelat II: the average generation is 22 years.

	born B.C.	accession age	B.C.	reign	death age	B.C.
Sheshenq I	1000?	60	940	21	81	919
Usarken I	958	49	919	24	73	895
Takelat I	946	51	895	18	69	877
Usarken II	924	47	877	25	72	852
Sheshenq II	902	50	852	0	50	852
Takelat II	880	28	852	20	48	832
Sheshenq III	858	26	832	47	73	785
Pamay	836	51	785	4	55	781
Sheshenq IV	814	33	781	33	66	748

After Takelat II, where Africanus ends this dynasty, there was a division, and the xxiiird dynasty branched from this, see *Recueil* 1913, *Ancient Egypt* 1914, 40. The xxiiird follows thus, the 1st year of Pedubast being dated to year vii of Sheshenq III.

		accession	Africanus reign	death
XXIII	Horsäast	832		826
	Pedubast	826	40	786
	Takelat III	786		770
	Usarken III	770	8	762
	Psammus	762	10	752
	Zêt	752	31	721
XXIV	Bakenranf	721	6	715

Pedubast dated to 826-786 is stated to have been contemporary with the 1st olympiad, 776 B.C., so the old compilers were not far from our course above.

This period is imperfect in Africanus, Horsäast and Takelat III being omitted. The entry Zêt is simply an abbreviation meaning "to be sought," as in other MSS. It only marks an hiatus without any name. The missing name (Pankhy?) or names, reflected the broken state of the country, which for a century later was held by a couple of dozen little principalities, much like the Mamelukes, as described under Pankhy (727) and Esarhaddon (670 B.C.). No one line was strong enough to be a suzerain, except the foreigner.

Upon this mass of broken states there came the Ethiopian conquest; during that dynasty there was a system of appointing the heir-apparent to act as viceroy in Egypt, while the old king ruled in Napata. Such a viceroy would be regarded by Asiatics as being the Ethiopian king, as we find in the Book of Kings referring to Shabaka and Taharqa.

The great stele of Pankhy describes his reconquest of the land in 727 B.C., and is dated in year xxi, so his reign began in 748. This is the date of Manetho for the end of the xxiind dynasty; further it is just after the close of the names of the xxiiiird dynasty by Psammus, 752. So this seems to have been the historic continuity. Zēt is "to be sought" in the welter of princes, or in Pankhy.

The xxivth dynasty, Bakenranf (721-715), was a rebellion against Pankhy, showing a weakening of Ethiopian control. His being burnt by Shabaka may have been to imply that he was only a mock king, like the New Year king (*Ancient Egypt* 1924, 97). The xxvth dynasty is rendered thus:—

Africanus		Eusebius		Monuments		begin B.C.	Jewish	
Sabakon	8	Sabbakon	12	Shabaka	12	717	Sua viceroy	725
Sebikhōs	14	Sevēkhos	12	Shabataka	12	705		
Tarkos	18	Tarakos	20	Taharqa	26	693	Tirhaka viceroy	701
	40		44	„ end 667		50		
							Greek	
							730?	Tafnekht I
							721	Bakenranf to 715
		Ammeres	12	Amenardus				
Stefinates	7	Stephinales	7			685		
Nekhepsos	6					678		
Nekhau	8					672		
Psammetikhos	54					664-610		

Amenardus, entered by Eusebius as beginning in 697, was associated as co-regent at the end of Shabaka, dated year 12. As a daughter of Kashta she was younger than Shabaka, but was co-regent at the end of his reign; being entered as part of the Saite dynasty by Eusebius, she may have been the viceroy in Egypt for part of the time. The perfect condition of her statue of alabaster at Thebes rather suggests that she was not hated in Egypt.

Pankhy's stele records his reconquest in 727; by 725 Shabaka was viceroy; in 717 Pankhy died, as Shabaka then begins his full reign. The shorter reign of 18 or 20 years attributed to Taharqa would refer to an assumption of independence of the Saite line, probably due to the advance of Esarhaddon in Palestine at 673, which would seem an opportunity to denounce Ethiopian rule.

After reaching Psamtek there is no uncertainty in the scale of history, as there are plenty of authorities and the later time is not questioned.

FLINDERS PETRIE.

TWO GLAZED HIPPOPOTAMUS FIGURES HITHERTO UNPUBLISHED.

THE glazed figure of a recumbent hippopotamus shown in three positions (Figs. 1-4) was found near Harageh, at the entrance to the Fayum, by the expedition of the British School of Archaeology in Egypt, in the season 1913-14, in a cemetery of the Middle Kingdom, grave 56. It was a shaft tomb, probably of the xiith dynasty. The only other noteworthy objects were a light green glazed pottery dog and a "salad dressing" pottery bottle (Engelbach, *Harageh* p. 12, pl. xiv, and pl. lviii, 56.)¹

The Harageh hippopotamus lies, with its head turned to its right, resting between its fore-legs. The noteworthy points of the figure are the natural pose, expressing complete restfulness, and the extremely fine modelling of the head, in the rendering of which the blue glaze specimens often fail.

It is difficult to show in a photograph the delicate relief modelling of the original, and the damaged patches cause some confusion that does not occur when viewing the actual object, yet, if these views be compared with other published specimens, a very high place, in point of verisimilitude, will, I think, be accorded to the Harageh figure.

Like many of the period, this model was originally covered with blue glaze, decorated with designs in black outline representing the flora and fauna of the marshes frequented by the animal, which was seldom seen except in glimpses through such a fore-ground. The glaze on our example has in places entirely perished and has turned absolutely white, except for a few patches of a light forget-me-not blue, originally doubtless considerably deeper in tone. The outlined designs fortunately remain more or less visible wherever the glaze is preserved.

In the course of his researches into representations of plants and animals in ancient Egypt, a list of examples of the *decorated* hippopotami has lately been published by Dr. L. Keimer with numerous plates and figures, some of which have never before been published (*Nouvelles Recherches au sujet du Potamogeton lucens dans l'Égypte ancienne et remarques sur l'ornementation des hippopotames en faïence du Moyen Empire, Revue de l'Égypte ancienne*, t. II, 1930, pp. 210-253).

Though Dr. Keimer does not claim that his list is exhaustive he has collected thirty-six examples: our specimen, unknown to him, makes thirty-seven. He gives a list of the *motifs*, and in some cases, the number of their occurrences on separate figures; in other cases I have been able to obtain this from his illustrations and descriptions, aided by a few further details from Dr. Hall's

¹ Mr. Engelbach describes the Hippopotamus as "a rough limestone figure"; this is a mistake for which he has a noble excuse. The outbreak of the European war occurred at a very early stage in the preparation of this book, he was an early volunteer, and before he resumed work five years later, "all the articles had been dispersed to various Museums, thus rendering a final checking impracticable."

publication in *J.E.A.* XIII, p. 57 and pl. xxiii. Dr. Hall gives some details not mentioned by Keimer, but the latter includes his models in his list (with a reference to the wrong volume of the *J.E.A.*, here correctly stated as XIII).

From these sources I have particulars of twenty-six of the decorated animals, including the Harageh specimen, as follows,—

Flowers of *Nymphaea* sp. appear on all but one model, which appears to be entirely decorated with pondweed. This is at Cairo. The leaves, and buds too, almost invariably occur, the exceptions being the very small specimens.

Potamogeton lucens Linn. (Shining pondweed) appears on five specimens (Keimer, p. 226).

Cyperus papyrus Linn., contrary to one's expectations, appears thrice only, our specimen being one of the cases.

Rosettes of various kinds are very usual, but not invariably present.

Birds appear six times, including an example in Berlin described by Dr. Hall, possibly there is a seventh occurrence, on our example.

Butterflies appear thrice, and possibly four times.

A bee is seen on one specimen.

There is one instance of a frog, half of the body emerging from a lotus flower.

Decorated bands are found four times and a network once.

The attitudes of thirty-one decorated figures are known to me and of these nineteen are standing, seven are recumbent and five are sitting.

In my examination of the Harageh hippopotamus I have found Dr. Keimer's article of the greatest value. His qualifications as botanist and archaeologist have enabled him to clear up obscure points as to the representation of the so-called "lotus" in particular, and as his article is not very accessible I give now a résumé of his chief points.

The "lotus" of Egyptologists is a *Nymphaea*, i.e. a lily. The two known in ancient Egypt were *Nymphaea caerulea* Sav. and *Nymphaea lotus* Linn. The Red lotus, *Nelumbium speciosum* = *Nelumbium nucifera*, was not introduced, says Dr. Keimer, till the Persian conquest.

The distinguishing marks of *N. caerulea* are,—the flower is nearly triangular when seen in profile, the petals are sky-blue and lanceolate; the four sepals are nearly the same length as the petals and also lanceolate, but narrower, and have on the exterior a series of vertical flecks.

In Egyptian decoration the flower is drawn in profile to show only three of the four sepals,—the flecks appear sometimes on the petals also and the whole design keeps a triangular air. The bud also shows the flecks, and is narrow, conical, and very pointed (see our Fig. 4).

N. lotus has a flower which looks rounded in profile; the snow-white petals have a rounded tip; the four sepals are of an ovoid form with rounded tips; a very pronounced veining is seen on the sepals. The bud is long, ovoid, and rounded at the tip, and contrary to *N. caerulea* the sepals have strong veining.

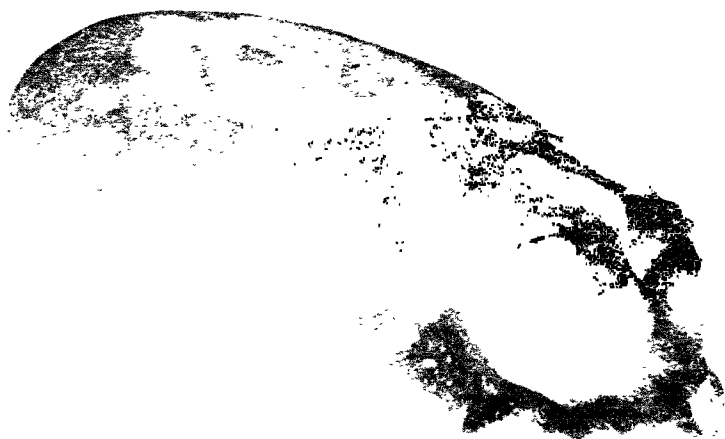
These characteristics appear in the ancient representations.

The natural leaf of *N. lotus* has a serrated edge, but the Egyptian all but invariably represented both species with the same leaf, that of the smooth-edged *N. caerulea*.

In addition to the buds and leaf, Keimer considers it possible that the flower as viewed from above is represented in a conventionalised form by the



1



2



3



4

rosettes of various designs so commonly found on the animals. The opinion, as he mentions, had already been advanced by Goodyear and others.

As for the designs on the models, Dr. Keimer shows that they are not disposed, as one might hastily have concluded, in a purely haphazard manner, but follow certain rules of which the guiding principle is that each motif is placed on the part of the body best adapted to it.

On the head of the animal is drawn the triangular profile of *N. caerulea*, the stalk coming down towards the snout, the tips of the petals falling over the back of the head and the neck.

On the base of the back the rounder, broader form of *N. lotus* fills the wide space better and is employed in every case but one, an example at Cairo, Keimer's Fig. 9.

The buds are generally placed so that their stalks decorate the legs; where pondweed appears, that often occupies the position on the legs, for which its slenderness makes it suitable. Leaves or buds often cover the cheeks, the stalks toward the snout.

When the animal is in a standing position the design on the two sides is always identical (I notice, however, very occasional slight differences in detail, for instance, Keimer's Fig. 7 has a tiny bee on one side and a small bird on the other).

These are the chief points of Keimer's interesting article so far as it relates to the hippopotamus models.

Let us now study the Manchester figure in the light of these observations. For a general view the drawing in diagrammatic form, Fig. 5, will be found most convenient, though many of the motifs appear clearly in the plate.

We shall find a *Nymphaea* bud and a papyrus respectively, on the fore-legs, the stalks on the slenderer part, while the hind legs each have a leaf arranged similarly; a very clear and bold flower of *N. caerulea* occupies the middle of one side, the flecks appearing contrary to nature, on some of the petals as well as on the sepals, as not uncommonly in the conventionalised representations (Fig. 4). By examining closely one finds that the flower on the opposite site has also the characteristic flecks, see Fig. 2. On the same Fig. 2, the flower of *N. lotus* can be seen to decorate the base of the back, for on one of the sepals the veining fortunately comes out in the photograph. This specimen therefore follows Keimer's rules.

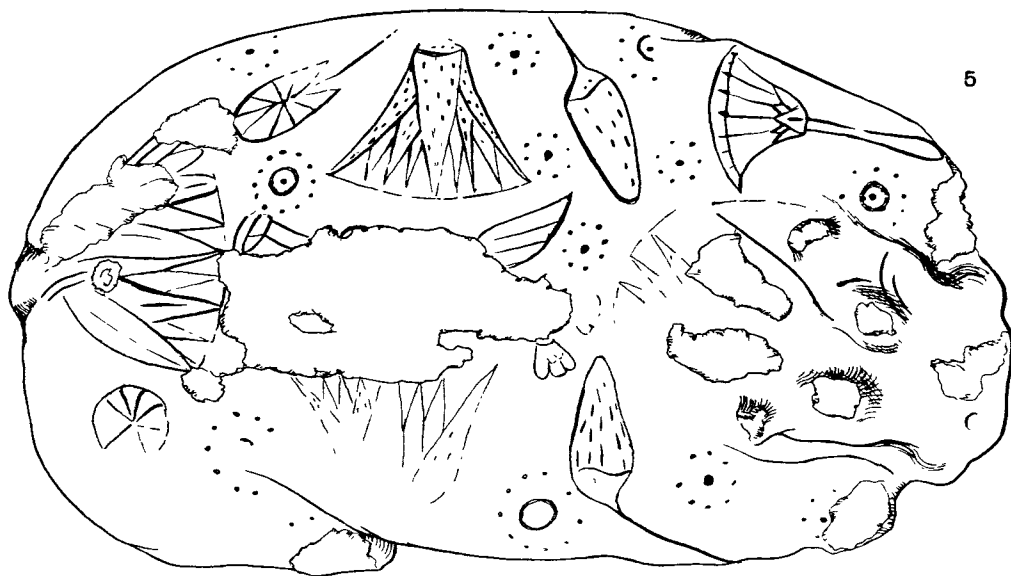
The top of the back (Fig. 5) is badly damaged. It evidently bore some of the less common designs, for instance, part of the wing of a bird or butterfly projects towards the head from the damaged portion, and below it are two objects which might be parts of the tail of the same bird, or possibly wings of another smaller butterfly.

Just above the lotus on the base of the back, between it and a rosette, can be faintly seen a tantalising fragment, which does not correspond to any part of any of the designs known to Keimer, and might therefore, if intact, have been of special interest. It appears only in the diagram, for none of the views were taken sufficiently overhead to display it.

The rosettes on this model are of two forms, only differing slightly. Keimer, who collects in his Fig. 48 the rosettes which he considers to be possibly derived from the flower of a *Nymphaea*, viewed from above, omits both these forms, though they occur on many of the finest specimens he publishes.

Apparently, therefore, he derives them from another source. It seems, nevertheless, that they may be a simplification of the flowers, showing only the anthers of the stamens, in fact the central part of the flower, without the surrounding petals. One can imagine the centre of the coloured illustration of *N. caerulea* shown in *Anc. Eg.* 1917, frontispiece, Fig. 1, being so conventionalised. However, as such a dot is sometimes placed to indicate the nostril of the beast, and is surrounded by a circle of dots to imitate the short hairs near the nostrils, the design may have been taken over originally from that usage.

With regard to the spacing out of the motifs, it may be noted that though in a recumbent figure the absolute symmetry of the two sides noted by Keimer for the standing beasts is not possible, yet the design has evidently been arranged to give as balanced an effect as may be (see diagram).



As to the period of the figure, it is doubtless of the Middle Kingdom, but can it be dated more closely?

The excavator gives the age of the glazed dog found with it, and therefore presumably of the tomb, as *Early Twelfth Dynasty* (Engelbach, *Harageh*, par. 50, pl. xiv, 8), although he places the greater part of the cemetery "within the limits of the reigns of Senusert II and Amenemhet III." One supposes he bases the early date on the presence in the tomb of a "salad mixer" or "corrugated" pot (*op. cit.*, tomb register, pl. lviii, 56). This style he places "before Senusert II." Apparently he has overlooked the fact that many examples were found at Kahun, a town only founded by Senusert II (Petrie, *Kahun*, pl. xiii).

Nevertheless the style of the hippopotamus does seem rather to accord with an early date, for several of the motifs are like those found on the three hippopotami from the tomb of an xith dynasty king at Dira Abu'l Naga,—the rosettes formed of dotted circles appear on one of these, two birds and the rare papyrus on another, while the third is like ours in being a recumbent figure. Though taken separately none of these points carries much weight, yet their cumulative effect is not without value.

Mr. G. D. Hornblower most kindly allows me to publish a head (Fig. 6) in his possession which he considers one of the few which is equal to the Harageh specimen in modelling. This was bought from a dealer. It was said to come from the same lot of tomb furniture as the blue glazed figure of a nude woman published by him in *J.E.A.* XV, pl. ix, 4 (also in his possession), and as the desert rats formerly in the collection of the Earl of Carnarvon, one of which is now in the British Museum. All these objects are in the style of the twelfth dynasty. It is in frit, with light blue-green glaze. There is no decoration. The plate shows its actual size.

The representation, on an animal figure, of objects with which it was supposed to be surrounded, was not, I think, till lately, known to occur before

6



the Middle Kingdom. It is now, however, carried back to the Middle Predynastic Period, for during his work at Badari Mr. Brunton found (in grave 3759) a fragment of a pottery hippopotamus with a design of a ship, and men with harpoons, evidently meant as surrounding the beast with intent to destroy it (*Bad. Civ.*, p. 54 and pls. liv, 15, and xlviii, 3). The fragment is that of the hindquarters and fortunately both sides of these remain. One can note, therefore, that on this primitive example the two sides are not identical, for on the right is the stern of a boat, with the sheltering branch for the helmsman, as seen constantly on the Predynastic vases, while on the left side are the harpooners. My impression is that if we had the remainder we should find a boat near the head on the *left* side of the beast, and harpooners on the *right*. The fragment shows a sense of balance and the two sides were probably alike, though reversed. Though the carrying out differs, it is surprising to find an idea,

so common in the Middle Kingdom, already in existence so far back in Pre-dynastic times. Will intervening examples perhaps be discovered?

This article was practically finished when I noticed, on the photograph of the hippopotamus found at Harageh the same year as the Manchester example, and figured in *Harageh*, pl. xiv, 12, faint traces of decoration, which appeared to me to represent a water lily leaf. Through the kindness of the authorities of the Newbury Museum I have since been allowed to examine the specimen and though the traces are excessively faint, it appears to me that it probably did bear a floral pattern of the usual design. It is, in any case, a beautifully moulded specimen, though small ($2\frac{5}{8}$ long by $1\frac{1}{16}$ broad). The blue paste covering it is of a different order from the usual glaze, the blue colour remains, but the glossy appearance is missing and probably the outer surface has entirely perished, hence the disappearance of the pattern.

W. M. CROMPTON.

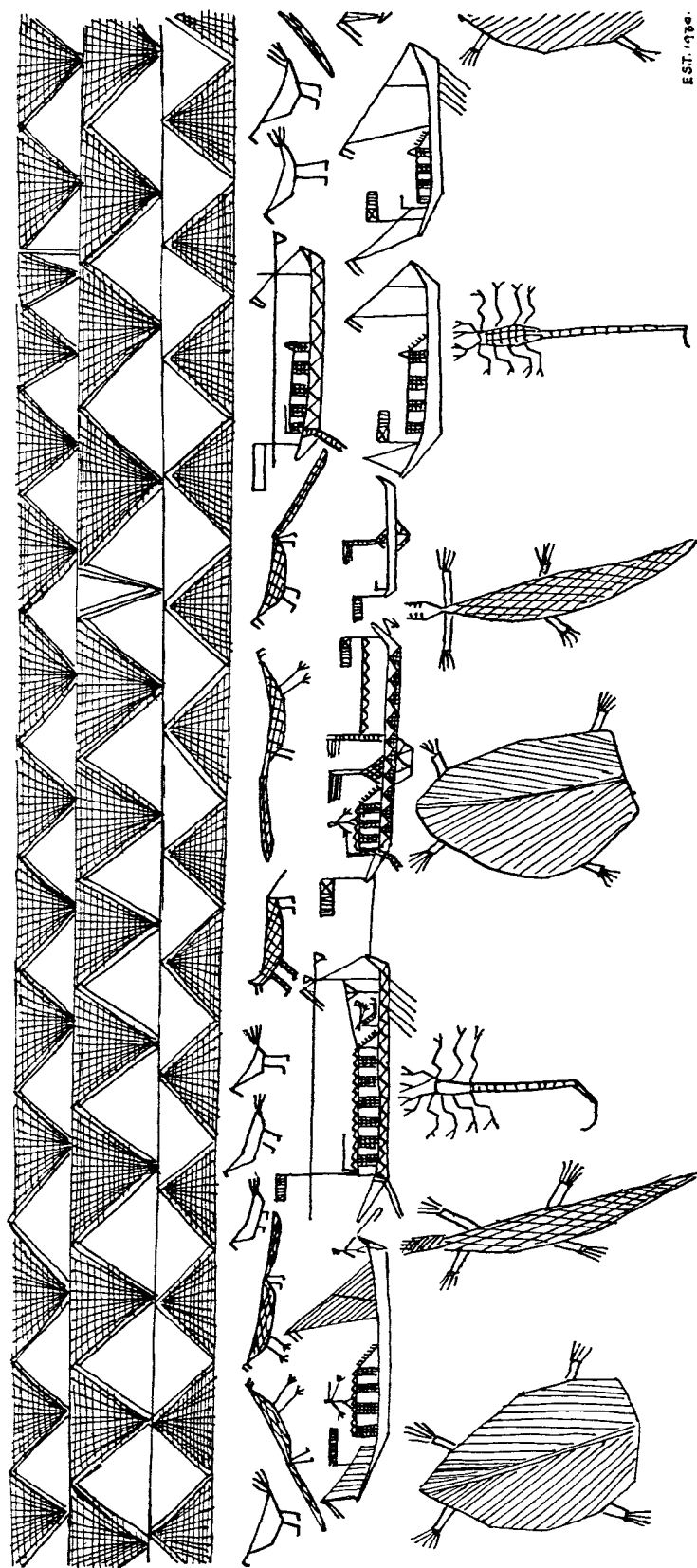
NOTE ON A DECORATED GOURD.

A GOURD from the Sudan with incised designs represented in the accompanying figure was presented to the Pitt Rivers Museum in 1881. In the upper registers are hatched triangles; beneath them are non-descript animals and a bird; next below are various boats and a Nile steamer towing a dahabiah. Beneath the boats are (presumably) a turtle, crocodile, and scorpion.

Except in the case of the scorpion, the artist has followed the ancient Egyptian scheme: land, water, and creatures under the water, in order downwards. The bands of hatched triangles recall the pattern on the decorated pots of protodynastic age, on which it has been suggested hills are represented. As on those pots, animals are represented above the boats, and aquatic creatures below them. But I can find no example on which all three occur together. A comparison of the boats is interesting, or rather, instructive. Knowing what a Nile-steamer and dahabiah are like we can recognize them and the detail, although (e.g.) the cabins are gabled and the engine enclosure triangular. The hulls are fancifully ornamented, the shapes of the boats' extremities and the size of the figures exaggerated. But the steamer has an extra flag on a very stout pole forward. A superfluous bank of oars may also be remarked on, (below) the dahabiah. Perhaps, and very probably, the Nile boats represented on the Decorated Pottery are not less unlike the originals than these are. Who without knowing would recognize the funnel and smoke, and the anchor (? on a boom) at the steamer's bow? On second thoughts, is the object in front of the funnel a flag after all, or another smoking stack, perhaps from the galley? It is impossible to suppose that the artist in 1881 was inspired in his design by the sight of an analogously decorated Ancient Egyptian red-painted pot.

I am enabled to produce this note by the kindness of Mr. Henry Balfour, Curator of the Pitt Rivers Museum.

E. S. THOMAS.



EST. 1930.

REVIEWS.

The Edwin Smith Surgical Papyrus. By J. H. BREASTED. 4th. Vol. I, 596 pp., 8 pls., vol. II. xiii pp., 44 pls. 84s. 1930. (University of Chicago Press, Printed in Oxford.)

This work is a revelation of the beginnings of scientific diagnosis of injuries, which gives a rational basis of treatment on which later methods were built. It lets us see the growth of common sense observation and reasoning, like that of North Americans in a case recently described. There is no reliance or magic in the treatment, though on the back of the roll have been copied incantations and recipes of an entirely different nature.

This splendid papyrus, over fifteen feet long and thirteen inches high, is magnificently reproduced in the second volume, faced with a transcription into hieroglyphics. The writing is old and large, and according to the forms it is attributed to the late Hyksos age. It belongs, then, to that scientific growth, of exposition if not of research, witnessed by the mathematical Rhind papyrus.

The text consists of an original treatise, supplemented by glosses of later copyists in order to explain difficult terms. In our ignorance of the usages of technical terms, the comments of those to whom the older text was obscure, are of essential value.

The subject is the treatment of injuries, twelve instances in the flesh, thirty-three in the bones. Each case is divided into diagnosis, decision if it can be treated, and treatment with observations. The stages are fully discussed by Prof. Breasted, and the meaning of unknown or doubtful words is considered. A few instances of the text may be quoted.

"Instructions concerning a wound in his ear. If you examine a man having a wound in his ear, cutting through the flesh, the injury being in the lower part of the ear, and confined to the flesh. You should say about him 'one having a wound in his ear, cutting through the flesh. An ailment which I will treat.' If you find the stitching of that wound loose, and sticking in the two lips of his wound, you should make for him stiff rolls of linen, and pad the back of his ear therewith. You should treat it afterward with grease, honey, and lint every day till he recovers." This use of honey on a healing surface is very usual, though the action of it is obscure to us.

"Concerning a break in his collar-bone. If you examine a man having a break in his collar-bone, you should find his collar-bone short and separated from its fellow. You should say about him 'one having a break in his collar-bone, an ailment which I will treat.' You should place him flat on his back, with something folded between his two shoulder blades. You should spread out his two shoulders in order to stretch apart his collar-bone, until that break falls into his place. You should make for him two splints of linen; you should

apply one of them on the inside of his upper arm and the other on the outside of his upper arm. You should bind it with *amaru*, and treat it with honey every day till he recovers." *Amaru* was some mineral, not yet identified, perhaps an alkaline carbonate.

The greater part, or perhaps the whole, of these cases described were due to wounds in warfare; and, as illustrating such injuries, nine examples of wounds found on bodies of ancient soldiers are here illustrated.

The various symptoms of different kinds of spinal injury, shown by different paralyses, are carefully described. Some curious terms are used. "Moor a man at his mooring stakes" means keeping the patient quiet in habitual conditions. In very serious or hopeless cases of head injury "make for him two supports of brick, until you know he has reached a decisive point"; the patient was thus propped up with a built support to fit the body, so that the injured parts should not be shifted.

Such a technical work abounds in difficult words, sometimes quite unknown: but the repetition of such in a body of text like this gives the best road to interpretation. Not only is this book the greatest step in our knowledge of early surgery and treatment, but it will clear up many obscure terms, and be a valued text-book for students of hieratic.

The Prehistoric site of Okanomo, province of Chikuzen, by S. SHIMADA, and *Essay on Ancient Mirrors*, by S. UMEHARA. 8^{vo}. 150 pp. + 27 English; 30 pls., 39 figures. (Kyoto Imperial University) 1930.

Again we must welcome an excellent volume of the researches of our friends in the southern end of Japan. The burials were mostly in double urns, placed mouth to mouth. They belong to the earliest Bronze Age, from about 100 B.C. to 100 A.D. The spear heads are narrow and straight, with a polygonal mid-rib. The main study is that of the bronze mirror designs of this period, largely built up from broken examples. This is a welcome addition to the series of volumes on Japanese archaeology, which can be consulted at University College.


Earlier Historical Records of Ramses III. By the Epigraphic Survey. 18½ × 23½ ins. 10 pp., 54 pls. (University of Chicago Press) 1930. 20 dollars.

This fine book marks a new departure in size and style. The plates are larger than in any work of the last half century, and produced with a lavish care for accuracy. There is however no attempt to keep a uniform scale for the plates, which vary from 4·8 to 11·7 *per cent.* of the original. Though so perfect in the technical and practical value of the copies, no mere sumptuousness or display is shown; and the cost is less per plate area than in any other issue. This is a noble standard to set for the future, and it is to be hoped that others will follow it as nearly as means permit.

The subject is the great historical scenes and texts at Medinet Habu. The general direction is by Prof. Nelson of Beirut, since the beginning in 1924, aided by six epigraphers and artists, four architects, and a photographer. The actual workers somewhat changed, but these numbers were maintained during the last five years.

The Introduction describes the conditions and history of the work. The translations by Prof. Breasted will appear in a more compact volume, and the architecture will be described by Prof. Hölscher. Prof. Nelson gives a description

of the scenes of the plates, and discusses their relation and character. The stages of the copying are 1st, a photograph, and enlarged blue print; 2nd, drawing on the print; 3rd, outline in ink and bleaching out the blue; 4th, print off blue copies of the inked outlines; 5th, cut up sections of this print to be verified in detail on the original wall; 6th, from these make finally a corrected drawing; 7th, copy in any lost details from earlier copies.

The parts copied are the whole of the north outside (sea fight), and portions of the south, inside of first and second courts. Enlarged photographs of the surroundings and buildings, and special scenes, occupy 18 plates, and there are double that number of line drawings. The only possible improvement might be in a purely artistic copying of the faces, which sometimes hardly receive the expression in the mechanical drawing. One suggestion is made by Mr. Starkey that the strange *sa* sign  is the cap of a quiver; compare the larger copy on pl. 25 with the cap closing the quivers on pl. 29.

NOTES AND NEWS.

THE British School of Egyptian Archaeology continued work at Tell Ajjul near Gaza, both on a city and a cemetery. The houses just below the surface were in good condition, up to six or eight feet high, even some doorways being complete with walling above. The latest date in this top level was given by scarabs of Apepa I, 2200 B.C. Below the upper levels the walls continued down, and not much fresh planning had been done during the history of the place. The streets are long, and straight, not like modern Arab building, and the life of the Canaanites seems to have been as civilised as that the Egyptians. The cemetery is both of the Copper Age with domed chambers, and of the Bronze Age with loculi around large pit tombs. The whole region must be thoroughly searched, as it is the best early site known, for the large extent, important position, and unencumbered land.

The Exhibition at University College will be open July 6 to 25.

Here there will be on view pottery and implements of the Copper and Bronze Ages; also many Hyksos antiquities (Bronze Age)—scarabs, goldwork, toggle-pins, and the skeleton of the great horse, the earliest known.

The Rockefeller establishment at Megiddo is clearing a fresh part of the site, but work is not active until the publication of the past discoveries is out of hand.

At Samaria a combined expedition under Mr. Crowfoot is at work, but the cumber of late building hinders the search of the Omri city. The Herodian hippodrome in the valley below is being cleared, and the pottery of the early iron age is found beneath it.

TELL EL AJJŪL.

A FRESH site of more than ordinary importance has occupied all our energies during the past six months. While the excavations of Beth-pelet two years ago gave a good historical view of the Hyksos by a series of great tombs, the town of that age was hardly accessible, owing to the depth of remains of later ages. It was therefore most satisfactory to find the immense site of Tell el Ajjūl, a city of the Hyksos, entirely free of later occupation. A first glance in 1926 showed the early date, and in 1930 a further visit proved its importance and extent.

The operations of our advance camp were chequered in October by severe malaria, which prevented most of our expedition from starting work there. Of the local men employed, over a quarter were so ill that they had to be sent to hospital. After some weeks at Beth-pelet, however, we were able to join forces at Ajjūl by the middle of December, and could summon more trained Bedawy workers from further south by the beginning of January.

The difficulty due to malaria opened my eyes to the cause of the desolation of Ajjūl about 2000 B.C. Like the cities of southern Italy, it was abandoned as being too unhealthy. There can be no doubt that the population moved away to Gaza, about five miles to the north, and thus is explained the anomaly that the chief city of South Palestine is not on the river mouth of the same name, the Wady Ghuzzeh. This separation on the map had always seemed strange, but life at the place soon proved the reason. Thus Ajjūl is really Old Gaza, and the city was rebuilt elsewhere, as in so many other instances. Gerar and Lachish, Paphos, and even Aberdeen, have all been transferred from their original sites.

This old city of Gaza was placed on a bluff of sandstone, about fifty feet above the stream-bed. The rock was but soft, being a sand dune consolidated, mainly by diffusion of gypsum from the moist soil below. This penetration has also filled the overlying marl with white gritty lumps, which mark undisturbed soil. The sandstone was not level, and the city varies much in depth over the native rock. It covers, in all, about 33 acres or twenty times the area of Troy.

A remarkable feature in the history of the site is the great amount of denudation between the Copper Age and the Middle Bronze. Tombs of the early period, found in the plain below the tell, have been in some places almost entirely washed away, by a loss of seven or eight feet depth of tough marl or sandstone; one end of a long tunnel has been obliterated near the city gate, through at least eight feet of hard brown clay. A long period must be allowed for such changes. Later, an opposite change has occurred; the sandstone causeway across the fosse was flanked by a deep trench along the

side; the trench has been filled, the sandstone covered by a couple of feet of dense marl extending over the trench, and subsequently about twenty feet of earth has been washed down over it from the town. Of even later date there is a cobbled causeway at the filled-up level, yet presumably before 1600 B.C. All of these changes of surface, and probably of climate, show that long periods have elapsed within the ages of Copper and Bronze, rendering the Neolithic culture more remote to us.



1. Bluff of sandstone hill over Wady Ghuzzeh.

The position of this site was of the greatest importance in the early civilisations. Ajjūl was the key city on the main road between Egypt and Asia. In crossing the desert from Egypt, the first large river mouth was the Wady Ghuzzeh, where harbourage for shipping was possible, and green pastures began. The city stood on the height above it. All the trade that travelled the great road must pass here; any attempt to cross the desert, in either direction, depended on this city for its success. Troy commanded a link between Europe and Asia, but this city commanded the only link between Africa and Asia. We may expect to find here the results of commerce through all the early ages. The weights which I have examined show that Egypt was the main customer, North Syria next, and Babylonia third in the business.

A chief consideration was security, as the place was the base of operations for Syria, or the first foothold over the desert from Egypt. For protection there was an immense fosse, 150 feet from edge to edge, dropping vertically

outside, and then sloping up at 35° to the crest of the bank. This is a fortification like the Central Asian fortresses of the plains, seen also at Homs (Emesa) where the outside edge is a vertical drop, and then a long slope covers the whole hill-side.

On the south side, facing the Wady, the sandstone is steep and no trace of a ditch could be found. The stream ran close to the hill and it appears to have been a permanent estuary, sufficient to prevent approach. The whole land



2. Tunnel with side port for working.

has been so much depressed and raised, since then, that the present levels bear no reference to the ancient conditions.

Besides the stream and the great fosse there were other defences on the plain outside the town. A great trench with sloping sides about thirty feet deep was partly opened, and near it are sunken roads cut into the sandstone. The same cuttings ended in a tunnel, which led deviously to the city gate, 500 ft. distant. It varied in height, about 6 ft. at the outer end, but only four or five in other parts. There were grooves at two points on either side to hold beams, by which it could be closed. At intervals there were side openings, through which the material could be removed; they were evidently intended to be closed, and the flat bottom of the side pit supported a plug of earth for blocking.

The history of the successive periods, as far as can yet be seen, may be summarised as follows, stating from later to earlier levels:—

TOP	High level roadway, before 1600 B.C.
	20 ft. of loess, washed down over gateway.
	Two feet of road stuff laid over gangway and trench.
	Denudation of brown clay near hill, and tunnel end;
	and of tombs of Copper and Bronze Age (vi? to xv dyn.);
	and baring of sandstone gangway.
	Filling of gangway side trench by loess.
	Tunnel cut in brown clay below gangway.
	Great fosse cut round hill, leaving gangway.
	Tombs cut in marl and sandstone, Copper Age.
	Brown clay deposit N.E. of hill, marl further out.
	Infiltration of sand by gypsum from below.
BASE	Steep sand dunes, blown in from coast.

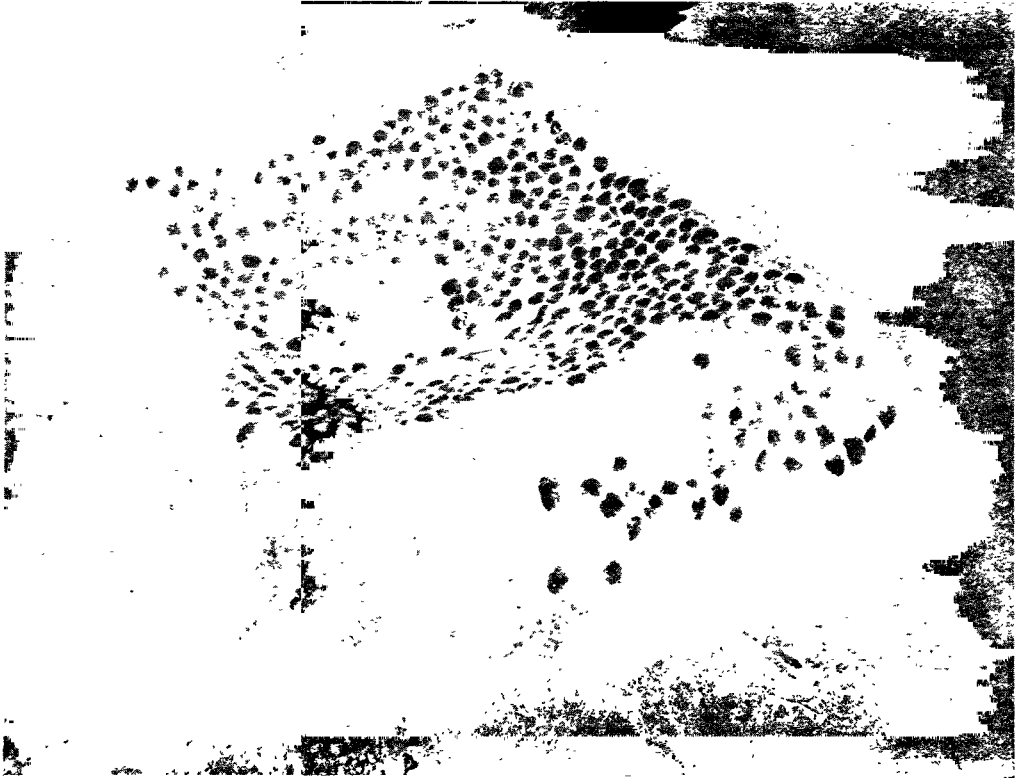
The tell is chiefly ploughland, and planted with figs in some parts, since the war. As it had been proclaimed an ancient site, the land enclosers could not claim rights. This was fortunate, as over thirty different holders had to be dealt with, owing to the system of individual share in joint inheritance in families. We gave compensation as a favour and not a legal right, for use of the ground, which has to be returned to cultivation.

For beginning the examination of the city, a narrow tongue of land was chosen, as it bore twenty-five feet of ruins, and the earth could be thrown in a ravine near at hand. Two-thirds of an acre was bared, and we exposed eighty rooms of houses, and cleared four streets. It was surprising to find house walls remaining up to eight feet high; the cause of their preservation was their burial in the ruins of their upper storeys. As the walls cover little more than a quarter of the area, their ruin filling the rooms would imply houses of at least two storeys above the ground floor. In some cases even the brick lintel and wall above it remain intact, and one could walk through the rooms, which only needed a roof to be habitable. The nature of the bricks favoured such preservation; they are of tough, hard, yellow clay, about $21 \times 14 \times 5$ inches, equal to a dozen modern bricks, and the walls were often one brick thick, 21 inches. They were brought from some distance, as such clay has not been seen in the neighbourhood. This is the Pompeii of the Hyksos Age, waiting to be dug out and planned, if donations can be raised. The roadways are usually six or eight feet wide, sometimes spreading out to ten or twelve feet.

The great gate of the city was partly examined, but will require much more clearance. A trench ran along the side of the sandstone causeway to prevent a massed attack. On clearing away the side we found a block of limestone far in, and may assume that a limestone gateway has to be found.

The other cities, Gerar and Beth-pelet, were of the age of Egyptian conquests, in which they rebuilt on a different plan each time, so that an old wall was rarely continued later. At Ajjūl, on the contrary, there had been continuous occupation, so that walls were raised on the same lines by successive owners. A room can be cleared out lower and lower, with but small shifts of outline through several rebuildings. In some of the houses, in the middle of the room there were raised square hearths, about three feet across, with plastered floor all round for sitting.

Two shrines were uncovered, each opening off a road; they were small chambers lined with white plaster. One stood alone, another had a passage of approach with a lobby before, and another after, the shrine. Part of the ceremonial used in entering these shrines is shown by the provision for foot-washing before the door. A raised wash-place was neatly covered with sea-shells, bedded in mud, about three feet across and half as high. In one such place there was a central hole, in the mouth of a large jar which stood in the



3. Ablution bench covered with shells.

ground beneath; at the other shrine, the wash-place sloped towards a drain hole in the ground, steined round. These places show that the custom of ablutions before entering a shrine did not originate with Judaism, much less with Islam, but was an old Canaanite custom. Similarly, the Hyksos tombs at Beth-pelet had large water-jars in a row by the door, like those described in the marriage at Cana of Galilee, "according to the purifying of the Jews," who copied the Canaanites.

The evidence of the date of the city is clear. It is covered with sherds of the Bronze Age, and only a few small patches of much later remains have been noticed. More exactly, there were three scarabs of Apepa I found in the upper level of the city, dating that to about 2250 B.C. Similarly, a bead found in a corn pit at the high level bore the cartouche of Amenemhat, before 2375 B.C. Nothing dated later than Apepa was found in the rooms. We must, therefore, place the desertion of the city about 2200; probably it was a gradual

movement over one or two centuries. In the cemetery a mixed region of rubbish contained a scarab of Sma-ka-ra, of middle Hyksos date, and also two scarabs of Amenhetep I. On the tell were some purely Egyptian scarabs of the xiith and xiiith dynasties, as Ptah-mery, the treasurer Senba, and the great scribe of the treasurer, Nehes (= *Scarabs* xvii, BD). Some other scarabs have early names that are new to us.

A passable imitation of Egyptian work, found in a tomb on the tell, is a squatting figure of grey limestone, 8 inches high. The style of the face, the thickness of the feet, and the general finish are not truly Egyptian. It was inscribed for the "devoted to Ptah-seker, the Intendant of the Guard of the Interior, Hor-ka"; the spelling is defective naming Ptah-serek with transposed signs. Similarly on the scarabs there are often errors, usually in reversed facing of signs. The Syrian knew something of the writing of hieroglyphs but was not really familiar with them.



4. Rapier and skew-handled dagger. Pre-Hyksos.

In the city three kilns were found, doubtless for pottery, and a large oven. The best kiln had a pierced table with the fire beneath it, as in modern usage, supported by corbelling of brickwork; another kiln had large bricks on end, made specially for support. One of these kilns must belong to the earliest remains here, as its blast-hole faces buildings of the lowest level, which would block the draught and must have been built subsequently. Perhaps the heap of wasters may underlie those houses.

Of copper and bronze work there were half-a-dozen daggers, besides a fine rapier eighteen inches long, found in a tomb. The skew-handled dagger is a type not hitherto known. A great number of lance-heads were also found in the city, more numerous than arrowheads.

Pottery abounded, and 470 drawings of new types or varieties were added to the *corpus*. Beside the classes known from the Hyksos tombs, there was an entirely new class of large flat-bottomed jars, found alone in the early Bronze, or rather Copper, Age tombs. Several kinds of painted ware came from other

lands, and some hitherto unknown is probably Anatolian. The incised patterns attributed to the early Bronze Age were found almost equally at all levels of the city; some examples show the origin of these patterns in well executed wreaths of leaves.

The cemetery has been examined on the north of the city. So far, the tombs there are in two distinct classes. The Hyksos period had burials of a type entirely different from those of that age at Beth-pelet. Instead of a bilateral chamber, there are circular pits twelve to eighteen feet across, and about six feet deep, with loculi around them for bodies. It can hardly be supposed that the pits were dug open again to place fresh burials, they would seem rather to have been chamber tombs, and might have lost their covering

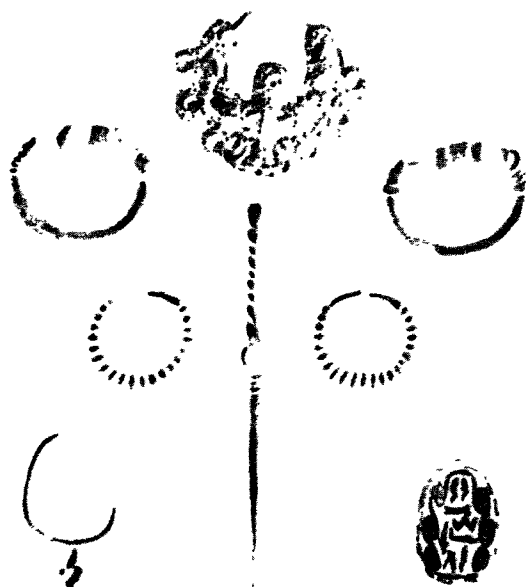


5. Two pots, Copper Age; vase, Bronze Age.

during the large denudation proved by earlier tombs. But what covering could it have been? There is no trace of a fallen roof of earth, only loose wash in them; nor is there any central pillar for a timber roof. They may have been roofed with long poles and matting or brush wood, like the first Royal Tombs in Egypt. The problem still has to be cleared up. There can be no doubt about the period, as the pottery is like that of Hyksos age in the city and at Beth-pelet. Perhaps the bilateral chamber and the loculus tomb belong to different people, Hyksos and Canaanite. As neither type is dated elsewhere in Palestine, the question remains open for the present.

The skeletons were measured as they lay, the bones being too much rotted for removal. The Middle Bronze people were short, men 61 inches, women 55 inches, the tallest only 67 inches. The skulls were broad, averaging 78 for cephalic index. In most instances they were distorted by pressure, and detail can only be ascertained by careful study. Those in passable condition were waxed, and brought away solid with hard earth.

Earlier than the loculus pits are the shaft and dome chambers. The shaft is square, and a slab of limestone covers the doorway to a domed chamber, entirely cut in the marl. The pottery is scanty, seldom more than a single large jar, flat-bottomed; it occasionally has a degraded wavy ledge-handle which links it to the late Neolithic period. It is thin, hand-made, but wiped round (perhaps on a turn-table), and poorly baked, a grey drab without any red firing. This pottery passes into a form with two ring handles at the neck, or occasionally a spout. Small cylindrical cups are also found here. These tombs must be of great age, as the whole ground of hard marl and sandstone has been removed by denudation in some instances, leaving only a trace of the circular tomb, with the large door-slab still standing upright, bared. So far, the pottery of this age has not been found in the city, even at the lowest levels.



6. Gold work. Hyksos Age.

The animal remains need study and comparison with recent examples. The ass was often buried, and in one tomb four asses lay in a chamber beside the owner. In some other tombs the horse was buried; as the skull measures 22 inches long, it would seem that the Hyksos had the great horse. They were therefore riders like the Turkish invaders later. A strange collocation was a mass of bones and skulls of men and animals; the limbs in some instances were completely separated, as the arm of a man and the leg of an ass, each excised from the scapula; some ceremonial purpose must be inferred. Another collocation was a compact mass of bones of men and animals crushed together, fifteen inches deep, and several feet across. In the mass were six gold hair-rings and some fine scarabs of the early xviiith dynasty. The abandonment of the gold suggests that this was a plague pit, when some epidemic attacked all vertebrates alike.

A few discoveries of gold occurred in the city. A gold falcon with upraised wings is covered with granular work; it had been lost in the mud of the street. In the grave of a child lay a gold toggle pin and pair of earrings: an obsidian scarab with these bore the wish "May Yaz make satisfied Mera." Here Yaz may be the name of a god, perhaps a Tyrian deity (if it is part of the name Jezebel).

We always give finders the value of any gold or silver, and so secure even minute beads. The best of everything has been kept at Jerusalem.

We are as yet only beginning to feel our way amid the questions in this great site. The succession of peoples, the Canaanite or Hyksos origins, the Neolithic connections, the positions of the palace and the temples, the strange mixture of human and animal remains, the sources of imported objects, the early relations with Egypt, await research. The purpose of the extensive rock cuttings, the history of the denudation, the relation of the tunnel to the city levels, and many other matters will have to be explained. Such a great site of dominant importance will show us much of the Patriarchal ages, and of the transitions of the periods of early civilisation. The material awaits us, and the amount of support from the public for excavations will determine how much of the history is to be discovered.

FLINDERS PETRIE.

UNE PETITE FIGURINE ARCHAÏQUE.

Au mois d'avril 1927, en passant chez un antiquaire de la ville, j'ai été frappé par l'aspect bizarre d'une petite figurine en ivoire presque entièrement noircie.

J'ai jugé impossible de laisser là un objet si rare, et j'ai convaincu un Américain de l'acheter pour sa collection égyptienne.

C'est une toute petite statuette de $1\frac{1}{2}$ pouces de hauteur ; elle représente un enfant assis, les jambes repliées à l'intérieur et suçant un doigt de sa main droite, comme on peut juger d'après le mouvement du bras cassé et la marque du doigt visible sur les lèvres. Les lèvres de la figurine sont un peu tordues parce que l'artiste a été empêché de les sculpter d'un trait à cause du doigt qu'il a mis devant les lèvres. La main gauche repose allongée sur le genou ; la tête est coiffée d'un petit bonnet rond égyptien serrant bien le crâne.

L'attitude de la figurine est réglée d'après le canon pour l'Horus-enfant qui reste invariable pour cette espèce de sculpture dès l'époque des premières dynasties presque jusqu'au déclin de la civilisation égyptienne. C'est le même type, celui que nous voyons dans les figurines de lapis-lazuli nouvellement trouvées dans le tombeau de Toutankhamon, qui représente le pharaon en Horus-enfant.

La petite statuette du pharaon Pepy II, en albâtre, trouvée par M. Jéquier à Saqqara l'année passée repète exactement le même motif que la nôtre. Il y a si grand rapprochement entre la figurine en question et la statuette de Pepy II qu'on pourrait tout d'abord identifier son époque avec celle de Pepy II même sans autres indications.

Mais en examinant plus scrupuleusement le type, la matière, et la conservation de la figurine, nous pouvons constater une différence de caractère dans ces deux statuettes, différence qui prouve que la nôtre est plus archaïque. Les jambes repliées la rapprochent des statuettes en ivoire également trouvées par Flinders Petrie à Abydos et à Ballas et qui, d'après lui, datent de l'époque prédynastique.

De même, le travail du dos et de la taille de la figurine s'approche aussi de ces statuettes. (Voir « Abydos » par Flinders Petrie, Tabl. 1.)

Ce qui est encore plus frappant est la ressemblance de son type qui est très différent du type égyptien habituel même des premières dynasties. Déjà au moment de l'acheter, cette ressemblance m'a fait penser que cette figurine appartient à l'époque archaïque de l'art égyptien, c'est-à-dire aux dynasties entre 0-2^e.

Sentant toute l'importance de cette trouvaille afin d'être tout à fait sûr de l'exactitude de mon opinion, je me suis adressé à quelques égyptologues connus. Le docteur Reisner qui après l'avoir le plus attentivement examiné m'a prié de revenir, et j'invitai aussi le chimiste M. Lucas. Celui-ci constata que le cou,

le bras et d'autres parties du corps sont couverts d'une couche de carbonate de chaux, résultat de plusieurs siècles. Il me donna la recette d'enlever chimiquement la couche de carbonate de chaux ainsi que la teinture noire qui, selon l'opinion du D^r Reisner, pouvait être ajoutée récemment.

Les conclusions du D^r Reisner furent les suivantes : la figurine est absolument authentique, elle appartient à l'époque des dynasties entre 0-2^e et nous fait voir un produit important de l'art archaïque égyptien. Les musées d'Amérique, me dit M. Reisner, seraient fiers d'avoir parmi leurs collections un si beau et rare échantillon de l'art archaïque égyptien.



Quant au poids de la figurine qui est anormalement lourde, il me dit que cela se rencontre souvent dans les antiquités en ivoire. Le poids de la figurine est 12,6 gr., son poids spécifique 1,4, ce qui correspond au poids de l'ivoire, auquel la figurine ressemble tout à fait extérieurement.

Pour avoir les renseignements supplémentaires je suis retourné chez l'antiquaire qui avait vendu la figurine. Je lui ai dit qu'auparavant la figurine n'avait peut-être pas la même couleur et n'était pas polie. Il m'assura qu'il tient de l'arabe vendeur qu'elle vient d'être trouvée dans le *sebak* à Saqqara — chose que je supposais moi-même — et qu'il ne l'a changée ni de couleur, ni polie.

Ensuite j'ai montré la figurine aux autres égyptologues; entre eux Dr Borchardt me donna le conseil de la comparer avec la petite statuette du pharaon Pepy II en albâtre dernièrement trouvée par M. Jéquier à Saqqara. Mais cette comparaison était déjà faite et je conclus que la figurine en question est plus archaïque que la statuette trouvée par M. Jéquier.

Pour enlever la couche de carbonate de chaux, je procédai au nettoyage que j'avais déjà pratiqué dans mes travaux, croyant dangereuse la méthode chimique recommandée par M. Lucas.

Donc je choisis la méthode de nettoyage mécanique avec une toute fine aiguille et la loupe.

De cette façon j'ai constaté que la couleur noire de la figurine est restée toujours la même sous la couche de carbonate de chaux — cela veut dire qu'elle n'a pas été ajoutée récemment. Ainsi tout plaide pour la vérité de mon opinion que la figurine appartient à l'époque archaïque de l'art égyptien entre dynasties 0-2^e.

Au point de vue artistique la figurine est remarquable par la minutie du travail. Ce qui est plus caractéristique c'est le type du visage de la figurine qui n'est pas égyptien — au nez grand, aux pommettes proéminentes. Mais l'attitude n'est pas moins caractéristique avec ces jambes repliées — ce qui nous fait croire en l'art et de la civilisation, qui ont existés à l'époque pré-dynastique avant toute la culture égyptienne que nous avons l'habitude de la connaître.

Pédoulas, Chypre.

GRÉGOIRE LOUKIANOFF.

THE UNITY OF MAN.

(PART 2.)

PICTORIAL ART.

WHEN our eyes have become used to the Egyptian disregard of perspective, we can recognise many familiar motives in their pictures. On the *recto* of the slate palette of Nar-mer, the king in the form of a bull is breaking down a city wall and trampling upon a fleeing foe. Sahura, in the form of a gryphon, tramples upon a prostrate foe, who presses back his heart against his breast in his terror.¹ It is represented as having actually left the body, *perj ib*. This motive of trampling upon a foe passed over to horsemanship: on Roman coins, the Emperor rides over animals of all kinds that represent his enemies. A carved ivory panel of Roman date, on the ambo of the cathedral at Aix-la-Chapelle shows an Emperor riding down and spearing the lynx of Gaul.² This motive was adopted by Christianity, and a dragon became the symbol of martyrs who took the faith to new countries: St. George was thus represented.³

On the slate palette of Nar-mer the divinity of the king is emphasized by his giant size: in the same way, the Virgin of Mercy is shown supernaturally large in comparison with the monks and nuns or hierarchies who are sheltering under her cloak, even as, in a similar representation, St. Ursula is gigantic compared with the eleven thousand Virgins, or as many of them as the artist could crowd under the folds of her mantle.

At death the Egyptian's soul (*ba*) came forth⁴ as a human-headed bird, and hovered over the mummy in tombs and coffins:⁵ the medieval soul left the body by the mouth in the form of a naked, sexless, miniature human figure,⁶ and as such was weighed in the balance at the Judgment, received into Abraham's bosom, and held in a napkin by the First Person of the Trinity. .

Composite narrative pictures are familiar in Egyptian art: the Judgment before Osiris is one of these. In it the deceased is shown arriving for judgment whilst his soul is simultaneously weighed in the balance; in the same way many episodes of the Last Judgment were combined into one picture by medieval artists: the Last Trump, the weighing of souls, the separation of the just and

¹ Borchardt, *Sahura*, p. 8, fig. 4.

² Kisa, *Das Pantheon am Ambo Heinrichs II.* in *Westd. Zeitschr.* XXV, 1905.

³ The legend of St. George helps to explain all those in which a dragon figures. In the Acts of the Saints nearly all the early bishops of France, particularly those who founded episcopal seats, had to contend with monsters (e.g. St. Romain with the "gargouille" that was devastating Normandy. See Mâle, *L'art religieux ... du XIII^e siècle*.

⁴ Breasted, *Development of Religion and Thought*, p. 56.

⁵ B. M. Papyrus 10470.

⁶ Cf. *Queen Mary's Psalter* (Royal MS. 2 B. VII f. 214 v.) in which two devils are seizing the soul which issues from the mouth of a monk who had died unconfessed.

the unjust, the casting of the damned into Hell mouth, and the entry of the blessed into Paradise. Salome may figure twice in medieval scenes of the Beheading of the Baptist, once dancing—or rather tumbling—before Herod, and again with St. John's head on a charger.¹




The ladder was a recognised means of reaching heaven both in Egyptian and medieval ascents; doubtless the medieval artist was inspired by Jacob's Dream (*Gen.* xxviii, 12).

Hieroglyphic inscriptions almost always accompany Egyptian pictures and are used to supplement their meaning.² We find a similar use of ideograms in medieval art; a tree—that is, a stem surmounted by two or three leaves—indicates that the scene takes place on land, while parallel lines represent water; a tower with a door is a town, but if an angel guards the battlements, the scene is Jerusalem.³

The animal-headed gods of the Egyptians would have seemed less unfamiliar to former generations than to us, since throughout the Middle Ages the Evangelists were frequently represented as human figures with the heads of their symbolic creatures.⁴ Moreover, the medieval traveller was fully prepared to encounter dog-headed tribes; the grotesque semi-human figures in illuminated manuscripts represented actual beliefs, and were not entirely figments of the artist's brain.⁵

The rays of the sun's disc rest beneficently upon the heads of Akhenaten and his family in scenes of the Aten worship, and the Holy Spirit descends in tongues of flame in countless representations of the Pentecost. Christ may even be represented as the Sun of Righteousness, for the natural sun within the Signs of the Zodiac may be replaced by the seated figure of Our Lord, and on the W. doorway of the abbey at Vézelay Christ appears with the Twelve Apostles in connection with the Signs of the Zodiac and the Labours of the Months.⁶ (In this Pentecost scene, Christ is shown with hands extended, and from them flames emanate to the foreheads of the Apostles.) The spiritual nature of the Zodiac is clearly emphasized in these representations.⁶

MEASUREMENTS AND CALCULATIONS.

The earliest units of measure were taken from the human body. The Egyptians used  *meh*, cubit (or Arab headrope?),  *shesep*, palm, and  *deb*, finger. We still measure a horse by "hands"; cubit is Latin for elbow; *brasse*, French

¹ *Pembroke Coll. MS.* 120 f. 5 b.

² A. H. Gardiner, *Tomb of Amenemhet*, p. 15.

³ Mâle, *L'art religieux ... du XIII^e siècle*, p. 2.

⁴ *A. E.* 4, 1930.

⁵ Ratramne, a monk of Corbie in the time of Louis the Pious, wrote a long letter on cynocephali to St. Rimbart, who doubtless expected to meet half-human creatures on his missionary journeys. According to Ratramne, cynocephali were sharers of human reason. He added an argument that he borrowed from Oriental art: St. Christopher was cynocephalous. (*Patrol.* CXXI col. 1153, quoted by Mâle in *L'art religieux ... du XIII^e siècle*, p. 330.) Note also the two cynocephali in the groups framing the tympanum with the Descent of the Holy Spirit at Vézelay—a carving influenced by Byzantine scenes of Pentecost—in which are shown the peoples to whom the Apostles will carry the Gospel (Mâle, *ibid.*, p. 328).

⁶ James Fowler, *On Medieval Representations of the Months and Seasons*, in *Archæologia* XLIV. "The reason why the Zodiac is so often placed in doorways seems to be connected with the idea of Our Lord as at once the Sun of Righteousness and the Door of the Church... As the natural sun is replaced in these examples by the Sun of Righteousness, so are the Signs of the Zodiac by the Twelve Apostles, the first to reflect light from Our Lord." p. 185.

for fathom, is from Latin *branchia*, the two arms, and *pouce*, thumb, is inch. All the European languages use the foot.¹ Common objects were used for weights. The Egyptian *deben* was the anklet, so named in the tomb of Hetepheres,² whilst the *qedet* was the finger-ring; the dram (Greek *δραχμα*) is a handful. The decimal system is based on our possession of ten digits, and to "calculate" comes from *calculus*, pebble. We know from 51 Hen. III that "32 grains of wheat, taken in the midst of the ear, should be the weight of a starling penny. Twenty of those pence should weigh one ounce, twelve ounces a pound Troy."³ Moreover, "in times before passed, all great sums were paid by weight of gold or silver, as so many pounds or marks of silver, or so many pounds or marks of gold, cut into blanks, and not stamped... the smaller sums were paid in starlings, which were pence so called."³ Primitive methods of reckoning survive in the words tally and score.⁴

The ancient Egyptians were not unique in showing the plural by a triad group (*e.g.*, "Souls of Hieraconpolis"). There seems to have been a natural drift towards a triad (*cf.* Three Matrons, Three Charities, Three Nymphs, Three Children in the Fiery Furnace, Three Magi, and Three Women at the Sepulchre). Western medieval art was doubtless influenced by St. Mark's Gospel in showing three women at the Sepulchre, but standardisation was effected very early in the case of the Magi; Origen was the first to speak of them as three, and from the 6th century they were definitely three in number.⁵

TITLES AND OFFICES.

Translated literally, many Egyptian titles suggest very primitive conditions, but equally so do many of our own, once the glamour of familiarity has been pierced, whilst several quaint offices have vanished only recently from the Royal Household. For our present Sovereign has no Yeoman of the Mouth, no Knight Harbinger, no Serjeant Skinner, no Master of the Revels, and no Embellisher of Letters to Foreign Princes. Some Egyptian titles, indeed, are almost identical with our own, *e.g.*, Keeper of the Seal (*A.E.* 1925, p. 13, Nos. 350-1) or Intendant of the Seal in the privy and secret office of his lord, with Lord Privy Seal; Intendant of the Record Office under the Seal (*A.E.* 1925, p. 13, No. 348) or Keeper of Documents (*A.E.* 1925, p. 53, No. 757), with Master of the Rolls. Many Egyptian offices doubtless underwent evolution in course of time, even as our Lord Chamberlain attended to the royal comfort long before he censored plays; King Stephen's chamberlain assumed the name of his office in place of his own ancestral Norman name of de Tankerville,⁶ which most people would prefer today. Ptahshepses, Chief of the Workmen, probably

¹ E. Weekley, *Romance of Words*.





² *Museum of Fine Arts Bulletin*, Suppl. to Vol. XXV, May 1927, p. 21.

³ Stew. *Survey of London* (Everyman's Library), pp. 49 and 48.

⁴ Weekley, *op. cit.* Tallies were sticks split and notched in such a way that the notches could be compared for purposes of identification. Scorers at cricket used to "notch" the runs. A very ancient functionary of the Exchequer, the tally-cutter, was abolished in the reign of George III.

⁵ In the first chapter of Matthew they are simply alluded to as wise men from the east. The limiting of their number to three was doubtless influenced by the number of their gifts—gold, frankincense, and myrrh—and by the teaching of the theologians that they were prefigured in the Old Testament by the three sons of Noah—Shem, Ham, and Japhet—and symbolized the three races of mankind.

⁶ E. A. Webb, *Records of St. Bartholomew's Priory*, &c., 1921.

knew as much or as little of architecture as did William of Wykeham, a clerk trained in the Exchequer, who acted as clerk or overseer of the King's works at various manor-houses and castles. If all records of the origin of the Chancellor of the Exchequer were lost, this title¹ would be as obscure as that of . which is translated by dragoman. A chancellor was originally a kind of door-keeper, or   , in charge of a "chancel," a latticed barrier, a term that we now know in church architecture only, while in German it has survived in the word *Kanzel*, pulpit.² A budget was a little bag or purse in Shakespeare's day.

MANNERS, CUSTOMS, AND BELIEFS.

Manners and customs reveal many familiar traits, if we go back a little distance in our own history. When Akhenaten and his queen entertained the Queen-Mother, the bird course was eaten in the hand;³ at the feast in the Bayeux Tapestry chickens are handed to the guests on spits, and a diner at Bishop Odo's table is tearing a fish to pieces and thrusting it into his mouth with his fingers. Spoons and forks were practically unknown at the time, and were rare even in high society until the 16th century. A writer on *La Civilité* in 1480 gave the following advice: "Prends la viande avec trois doigts et ne remplis pas la bouche de trop gros morceaux."⁴ The varying standard of manners is well illustrated by two further examples: the first, a passage in the Customary of Westminster Abbey, in which the monks were enjoined to hold a cup with both hands according to the good old English custom—it was the Normans who had introduced the slovenly habit of holding it in one hand;⁵ the second, Lady Lisle's gift to Count Palatine Philip of "my toothpicker ... because I did see him wear a pin to pick his teeth withal." In exhibiting himself as a fond husband and father, Akhenaten seems to have anticipated by over 3000 years the taste of a generation that appreciates domestic virtues in Royalty.

Seneferu, probably the first king of the ivth dynasty, added to his claim to the throne by marrying Hetep-heres,⁶ a daughter of a king of the iiird dynasty: Henry VII, the first of the Tudors, satisfied the Yorkist party by marrying the eldest daughter of Edward IV. The importance in Egypt of descent in the female line seems strange to us nowadays, but it must have seemed less so in earlier times. For the rule that no woman might reign in France was only

¹ See a Dialogue written in 1176-8 by Richard Fitzneal, Bishop of London and Treasurer of the Exchequer under Henry II (*Cotton MS. Cleopatra A. XVI. B.M. Guide to MSS. Part II* [1923], p. 58-9), whence this passage:—

"The Exchequer is a rectangular table, about ten feet in length and five in width, placed like a dinner-table, with persons seated at it. It has a ledge about four fingers high all round it, that nothing ... may fall off. Upon the table is placed a cloth... The cloth is not of any kind you please, but a black cloth marked out by lines at a distance of a foot or a hand's-breadth apart. On the spaces thus marked are the counters, ranged in their proper order... And though the name of 'chequer' is properly applied to a table such as this, it is transferred also to the court which is held in the presence of the chequer."

² E. Weekley, *Romance of Words*.

³ *El Amarna III*, Pl. iv.

⁴ *V. & A. Guide to the Bayeux Tapestry*, 1921, p. 23.

⁵ *V. C. H. London*, Vol. I.

⁶ *Museum of Fine Arts Bulletin*, Suppl. to Vol. XXV, May 1927, p. 21.

laid down in 1317 to debar the daughter of Louis X in favour of her uncle, Philip V. Thus in reviving his claim to the French throne in 1340, and in emphasizing it by quartering the lilies of France with the leopards of England in the Royal Arms, Edward III was but expressing a claim (through his mother, a daughter of Philip IV) that had only been rendered void by the passing of this so-called Salic Law. Furthermore, the whole history of the ancient earldoms of England shows that they were continually made the inheritance of females, who were customarily preferred to a collateral male heir.¹

We now send cards wishing our friends a happy New Year, similarly the Egyptians gave rings or vases inscribed with the wish that Amen, Isis, or Bast might "open a good New Year for its lord."²

The medieval belief in magic expressed itself in a very similar way to the Egyptian. With amulets of the hand and leg, which are so often attached to their corresponding members in mummies, we may compare iconographic rings engraved with the figures of saints, namely, St. Barbara, for protection from sudden death, and St. Christopher for protection against sickness and flood, tempest and earthquake. Rings were also worn in the Middle Ages as a protection against disease or misfortune, either in virtue of the stones with which they were set or the talismanic inscriptions that they bore, while rings set with toadstones were supposed to protect new-born babes from the power of fairies.³

In a tale in the Westcar Papyrus a wax crocodile was thrown into the river and became a real crocodile which destroyed a guilty lover. A similar belief in the like nature of animate objects and their models is observable in later days: in Abbot Litlington's accounts for 1367-8 is the record of a payment of sixpence for a falcon of wax to be offered for a sick falcon,⁴ whilst as late as the 17th century, inscribed metal objects were carried on the person, or deposited in certain spots, with the intention of bringing good or evil fortune to an individual or place.⁵

The benefit to be derived from several remedies in Egyptian medical papyri would not inspire confidence nowadays, nor would the talismanic value of a Latin inscription tentatively rendered as "A holy mind, honour freely rendered to God, and liberty to the country," though it has been found on church tiles and on a church bell, and was included by a 15th-century monk in a volume of medical recipes and charms.⁶ Nor again would we now attribute virtue to the sound of a consecrated bell in averting peril from thunder and lightning.⁶

The ancient Egyptians made shoddy furniture even as we do: they substituted black and white paint for ebony and ivory inlay in their chairs and tables,

¹ *Herald and Genealogist*, VI, p. 186.

² *Objects of Daily Life*, pl. xii, p. 16.

³ *B. M. Medieval Guide*, 1924, pp. 150-2.

⁴ Westlake, *Westminster Abbey, The Church, &c. of St. Peter*, p. 119.

⁵ *B. M. Medieval Guide*, 1924, pp. 163-4. See also p. 160 as follows:—"Both Egypt and Babylonia possessed at an early date highly developed systems of magic, and both played a most important part in disseminating magical knowledge... The confused mass of Babylonian and Egyptian magical ideas was sifted and classified by the Greeks, the Romans, and the Jews. Alexandria became the great centre of magical belief... The Jews after the Captivity had developed from Babylonian sources a whole classification of angels and demons, and it was they who immediately inspired the medieval magic of Western Europe, for in the 13th century the Spanish Jews compiled the Kabbala, an exposition of theosophic doctrines drawing largely upon the earlier Greek compilations from oriental sources."

⁶ J. G. Nichols, *Examples of Decorative Tiles*, II, p. viii.

and painted the grain of wood excellently.¹ Our beds, chairs, and foldingstools are very much like theirs, and travelling trunks may still be seen under beds when space is limited.²

Pepy II was a typical child of any age in his eagerness to see his dwarf, and royalty continued to show interest in strange creatures long after his time. "Henry I built his manor of Woodstock with a park... He placed therein, besides great store of deer, divers strange beasts to be kept and nourished, such as were brought to him from far countries, as lions, leopards, linces, perpentines, and such other."³ The first time that an elephant was seen in England was in 1255, when Louis IX of France gave one to Henry III.⁴ We owe the pelicans in St. James's Park to Charles II, and the Zoo is the outcome of the Royal lions being kept at the Tower.⁵

The Egyptians were not the only people to ignore unpopular dynasties and to mutilate inscriptions containing hated names, as they did in the case of Hatshepsut and Akhenaten. There is a reference in the Inscription of Mes to the 59th year of the reign of Horemheb, showing that this king reckoned the reigns of his heretic predecessors as his own.⁶ Similarly, one Ellis Yonge died in 1659, "in the eleventh year of his Majesty's reign," thus ignoring the Commonwealth.⁷ The inscription on a Roman altar at Cleves now reads *pro salute Tiberii Claudii Caesaris Augustis Germanici imperatoris*, but a different name had originally started the titulary and had been chiselled out before that of Tiberius was cut: that hated name was Nero, and Tiberius must have been chosen because he was the only Emperor whose other names were the same.⁸

The classical language survived in Egypt for inscriptions long after it had been superseded by a more colloquial speech in daily life. In 17th-century England, works of imagination were still occasionally composed in Latin; it was not Burton's "intention to prostitute my muse in English" in his *Anatomy*, whereas Mulcaster, the first headmaster of the Merchant Taylors' School, which was opened in 1561, showed a more patriotic taste in his *Elementarie*:—"I honour the Latin, but I worship the English... Why not write all in English, a tongue of itself both deep in conceit and frank in delivery... not any whit behind the subtle Greek for couching close, or the stately Latin for spreading fair."

¹ Tomb of Hesy.

² *Bull. Metrop. Mus.* 1918-20, Pt. 2, fig. 18, p. 26.

³ Stow, *op. cit.*, p. 45.

⁴ Matthew Paris, quoted in Bond, *Woodwork... I (Misericords)*.

⁵ A. G. B. West, *The Liberties of the Tower* (*Edinb. Review*, July, 1925). See also Stow, *op. cit.*, p. 45:—"... in the year 1235, Frederick the Emperor sent to Henry III three leopards, in token of his regal shield of arms, wherein three leopards were pictured; since the which time those lions and others have been kept in a part of this bulwark, now called the Lion Tower..."

⁶ A. H. Gardiner, *Inscription of Mes*, p. 11.

⁷ E. A. Webb, *Records of St. Bartholomew's Priory, &c.*, 1921.

⁸ *Bonner Jahrb.*, 1852, *Mars Camulus-Altar zu Cleve*.

REVIEWS.

La glyptothèque Nyr Carlsberg—La collection Égyptienne. By MARIA MOGENSEN. 4^{to}. 129 pp., 793 figs. on 122 pls., 1930. 63s. post free. (Copenhagen, Levin & Munksgaard.)

This publication is worthy of the great collection which it describes. The plates are clear bright half-tone, which avoids deep shadows, individually well lighted. Unlike the national collections, this gathering is only forty years old, and it shows what fine results could be attained by liberal purchase of Carl Jacobsen, and by the taste of a scholar like Valdemar Schmidt. The descriptions have been carefully framed by Miss Mogensen, with comparisons and references. The figure-head is the basalt portrait, fig. 1, which has been variously attributed to some date between the 1st and xxvith dynasties. The minute detail is not of the Old Kingdom, the sculpture is far too good for the New Kingdom or the Renaissance, too spirited for Greek influence. The portrait is not that of any of the xiith dynasty kings. It has most affinity with the Vienna head, in the structure of the features and the absence of a brow ridge. The xith dynasty seems to be the most likely source.

The tendency here is to post-date in some cases; No. 22 looks more like xxxth or Ptolemaic, and 23 is far too good to be Roman, it might be Ptolemaic. Figs. 353, 4, 5, 7 belong to the modelled heads of foreigners from Memphis, the series now at University College. The great panel of the festival scene, 703, from Memphis is here put back from the xiith to the iiird dynasty, on the ground of its resemblance to work of Neter-khet. Should this be affirmed it would imply that the high platform, on which the Apries temple was built, was of the iiird dynasty, as the blocks of this gateway were found thrown aside at the level of the platform. Work of the iiird dynasty would not have lasted exposed until the xxvith, even if we suppose it to have been brought up from elsewhere. It is a stretch to account for xiith dynasty work in that position, but the iiird dynasty seems quite unaccountable as a source.

Two Egyptian torsos from El Amarnah. By C. R. WILLIAMS. 4^{to}. 19 pp., 2 pls. (Metropolitan Museum Studies, New York.)

This paper discusses the group of destroyed statues of Akhenaten and queen from Amarna. They had been brought out from the great temple, and smashed up in a heap. When Carter, excavating for Lord Amherst, found this heap, all the sculptures and chips were carefully collected and boxed up. The best pieces were exhibited at Oxford Mansions, and then the whole went to Didlington, as Lord Amherst's property. There the fragments were left in boxes, and no attempt was made to reconstitute the statues. After his death the whole mass was sent to Sotheby's, the larger and more distinct pieces were sold, and apparently 185 fragments which Mrs. Williams describes as at New York. The internal fragments needed to reconstitute the statues seem to have been thrown away as rubbish. Such was the sad fate of this group, which it is now sought to study and bring into some order.

Some misconceptions might naturally arise when brief records of nearly forty years ago are worked over by anyone *de novo*. The list in *Tell el Amarna*, p. 18, contains all that Petrie and Carter could do in classifying fragments on the spot. The piece of a tablet with hands bearing it, if not now visible, was probably thrown away at the sale. The place of destruction was not a "favissa" or regular temple deposit, but an open place far out, where the hated statues were dragged for execution. No such chips were found in the temple area, so the figures were not broken up there. When the pieces were packed at Amarna, it was expected that they would be very soon rebuilt, but as they belonged entirely to Lord Amherst, no one else could take up the affair. Such is the result of antiquities passing into private hands. The torso of a daughter (now at University College) was bought at Amarna in 1887, as recorded in *A Season in Egypt*, p. 26.

The discussion by Mrs. Williams is very careful, and recovers what can now be proved, but is foiled by the scattering of the material, which should have been reconstituted when all together. The reference to the British Museum which she quotes, does not belong to the Amherst group, but refers to the head which Perring obtained sixty years before.

The Egyptian Expedition 1929-1930. By H. E. WINLOCK and N. DE G. DAVIES. 8^{vo}. 42 pp., 42 figs. (Metropolitan Museum of Art, New York) 1930.

This report deals first with the reconstruction of the statues of Hatshepsut and their final homes; secondly with the details of the burial of queen Merytamen, wife of Amenhetep II. Unhappily only the pottery and baskets were left, all else had been robbed in the xxist dynasty, when the tomb was re-used for Entiune a daughter of Painezem. Her papyrus of the Book of the Dead was the principal object in the second burial.

The graphic section was a brief working up of results. The article deals mainly with the reliability of the figures of foreign races on the monuments. The discrepancy between figures of the prince of the Kheta in the time of Tehutmes III and of Rameses III is attributed to "gross blunder." It seems obvious, however, that the Syrian Kheta of the first period might have a chief of Syrian type, while the Anatolian Kheta who came down to join the great combine against Egypt, three centuries later, might be headed by a pure Kheta. There is ample room for changes in those turbulent centuries of Hittite advance. Keen as the Egyptian was in figuring foreigners on all occasions, we cannot accuse him of blunder without conclusive proof. The representations of plants of Tehutmes III are sneered at without giving them any botanical study. All this attitude is not the way to advance a scientific knowledge of ancient life. Cases of similar very natural habits among different races cannot prove that the artist ignorantly attributed the habit of one race to another. We hope that the wide knowledge of Mr. Davies will be devoted to further record of facts, which can only be interpreted safely after we know much more about the lands around Egypt.

The Theodore M. Davis Bequest. Egyptian Art by Ambrose Lansing. 4 pp., 12 figs. (Metropolitan Museum, New York) 1931.

Mr. Theodore Davis supported excavations in the Tombs of the Kings; from this work he received objects of Akhenaten, Yuya and Tuyu, Tehutmes IV,

Saptah, and Tausert. He was also an active collector of fine things. His bequests, figured here, are from these tombs, and also especially the predynastic ivory comb with animal figures, a Syrianising figure of Amenhetep III, and a fine silver statuette of a woman only clad in jewellery. Many other treasures of European origin are figured in this report.

The Ebers Papyrus. By C. P. BRYAN. 8^{vo}. 167 pp., 7 pls. 1930. (Bles.) 10s. 6d.

This is a translation from the German version of Ebers. While the general knowledge of this papyrus has suffered from the need of training in anatomy and physiology, among translators, the present version suffers from a want of "being familiar with the Egyptian language and in sympathy with the ideas and methods of these ancient peoples," a requisite described by Prof. Griffith and quoted here. A mixture of jocularity all through scarcely fits the subject or its scientific appreciation. We need a study with comparisons of parallel prescriptions elsewhere, and with the light on technical words from the Edwin Smith papyrus, treated with due sense of Egyptian modes of expression; till that arrives, those who cannot refer to the Ebers translation, and subsequent studies, may find some idea of ancient medicine in this version.

Karanis. By ARTHUR BOAK and ENOCH PETERSON. 8^{vo}. 69 pp., 42 pls., 20 plans. 1931. (University of Michigan.)

The town of Karanis, now Kom Aushim or Wushim, lies at the N.E. corner of the Fayum, fed by the canal that ran round the east side of the province from Hawara. Much of it had been entirely dug out by sebakhs diggers, and it was known as a source of papyri. A quarter of a century after Grenfell reported on it, Prof. Kelsey, wishing to excavate for papyri, began systematic work for the University of Michigan. He had the excellent idea of a survey of all the remains, and the proper publication of all the contents, pottery, coins, and apparatus. A sufficient staff was assembled, and the aims zealously pursued. Unhappily three years later Prof. Kelsey died, and the inspiration of the scheme ceased. Nothing has been published, until the present account of the topography; we await the publication of the pottery as dated by the coins and papyri. This is especially needed as the searchers for papyri have hitherto neglected to publish any series of pottery. In the detailed description of houses given here, there is not a single date suggested. Some groups of coins are described apart, without any definite relation to the buildings, though they should have dated the surrounding walls pretty closely. The plans are carefully detailed, but there is no key plan to show their position, nor any levels marked to prove the relation of buildings. Much more is needed, to fulfil the intentions of Prof. Kelsey.

La haute crue du Nil, et l'averse de l'an 6 du roi Taharqa. By VLADIMIR VIKENTIEV. 8^{vo}. 118 pp., 7 pls. 1930. (Université Égyptienne.)

This is a combined text of two steles, one from Mataaneh near Edfu, the other from Koptos. Both are partly defaced but, being exactly the same text, they supplement each other. The substance of the inscription is that Taharqa implored an abundant Nile from Amen, that he might "not produce misery in his reign." The Nile then rose regularly, and increased daily, reaching the high land of the south and the islands of the north; the earth was like the

primal ocean, without any bank seen in the river, after the rise had reached Thebes. It was therefore entered in the annals as unparalleled. Six pages follow on the god Hemen, mentioned on the stele. He belonged to Hefat, close to Asphynis. As offerings of land are made to him by Taharqa, on this stele, it may be presumed that he controlled the flood above Thebes.

The Religion of Ancient Palestine in the Light of Archaeology. By STANLEY A. COOK (Schweich lectures). 8°. 252 pp., 39 pls., map. 1930. (Milford.) 12s. 6d.

Any work on religion in Palestine labours under the difficulty of the very mixed sources of the beliefs. To view them all, end-on, at this distance, is to see a vast confusion, needing a detailed history step by step before they can be understood. Yet such a history is sadly lacking; the paucity of inscriptions, the slight local detail, and the over-shadowing proportion of Jewish and Classical ideas, leaves the older basis obscure. The penalty on any author who handles the subject is that he can only lay out a vast array of fragmentary details, which present research cannot yet render into a coherent whole. The work of Dr. Cook is thus a necessary step towards a synthesis, but leaves a reader baffled by masses of facts which can scarcely yet be joined into a continuous structure. It is a necessary stage before we can proceed, but much more historical detail of dated material is needed before a general picture can be visualized. The work is essential as a source-book and a guide; if this generation is diligent in discovery, the next may see the meaning of things which are now mere chips.

The work was a summing up in 1925; few of the later discoveries are mentioned although by 1930 the archaeology of Palestine was more developed. The method of the work is a division in three chapters, on the generalities of Syrian religions, on the deities and temples in pre-Roman times, and on the same in classical times. The plates comprise a very needful selection, though more examples are desirable. The footnotes throughout form an index to the literature on the various subjects, a mass of spade work which will save hunting for detail down to date. It will seem a contradiction to write of religion in Palestine without Judaism; but as that is a literary subject it is carefully avoided, and only implications from outside sources reflect upon it.

On the Egyptian side, several additions might be made. At p. 32, the winged sun-boat appears in the 1st dynasty (*Tombs of Courtiers* ii, xii). P. 38, the so-called "Philistine" tomb is of about 680 B.C., by a scarab of the late Menkara. P. 45, not only is the hand of god a symbol, but the finger of god, a carved wooden finger springing from a falcon head (U.C.). P. 46, the *onkh* is figured on a cylinder, as being given by king Khondy to a Syrian subject. The origin is a girdle tie, with two ends and bow knot. P. 60, the wide field of the Hyksos scarabs gives many sacred figures. P. 62. That incense altars are older than the Exodus is seen at Serabit, where they were much too heavy to move about. P. 83-4. The burials of a child at the corner of the fort of Tell Retabeh (Raamses) and of portions of bodies under corners at Hawara, confirm Macalister's view. P. 86. The lamp and bowl burials occur also at Lachish and Gerar, under buildings. P. 109, another slab of the riding goddess is at University College. P. 126, and pl. xxviii, the game-board is again entitled Astarte; it is only a late form of a well-known early game-board (*Sedment* I, xxii). P. 139, the flying swallow (or rather goat-sucker) is an amulet as far

back as the ixth dynasty (*Sedment* 6, xii). P. 167, for the pillars before a shrine see the details on a gem (one example in *Objects of daily use* xiv, 229) where the pillars support doves. P. 183. Marna can hardly be separated from the common title of generals in Syria, Maryna, in Egyptian. P. 213, the "flat cakes," on the tympana of architraves may have been large golden shields originally. Solomon made 200 "targets" or large shields, beside the 600 bucklers of the guard (see I Kings x, 16, xiv, 26).

Dr. Cook's final conclusions are to be pondered. "(1) The land of Israel—Palestine itself—is in completest touch—archaeologically—with the larger area of which it is an organic part; but (2) it has an individuality of its own. There is, in fact, a certain protest or reaction against other religions, even those which best enable us to understand Israel. In close contact with Egypt, but un-Egyptian, lying at the tail end of states which were bound up with Mesopotamia and Anatolia, and throughout exposed to the incursions of desert tribes, the small land must hammer out its own career or be swallowed up. The evidence seems to shew that the exclusiveness, the self-consciousness, one might say, which characterize the religion of Israel date from an early if not pre-Israelite period... The non-Israelite and pre-Israelite conditions of life and thought supplied the material which the great reforming minds of Israel, at certain epochs, reshaped and invested with a fuller content." This is parallel to the Christian development of the Hermetic, Essene, and Philonic thought and phraseology which had prepared a fitting ground.

New Light from Armageddon. By P. L. O. GUY. 8^{vo}. 68 pp., 61 figs. (Chicago Univ. Press) 1931.

This is a summary of results of the most complete and systematic excavation of the present time. Having a perennial budget and a prospect of removing the whole of Megiddo in the next half century, the scale and detail of the work naturally exceeds all other in the field. It begins with a list of seven present workers and eleven who have been there formerly.

The desertion of the old Tells in the Esdraelon region is attributed to malaria, caused by the neglect of water channels. All of the Expedition went down with malaria at Megiddo, but by control of all the water in the neighbourhood, and screening of the house, no cases have appeared in three years past. A serious preliminary work is the exhaustion of the cemeteries at the foot of the hill, to allow of dumping the great mass of earth from above. This work is still going on, and will probably produce more objects than the city. The pottery found is much like that in the south, of the same age.

A successful plan for air photographs is letting up a balloon carrying a camera; it requires to be ten feet diameter, so it is hardly practicable amid less ample methods. A large area of the Solomonic city and stables is now exposed, and an important conclusion is that the buildings were of "three rows of hewn stone and a row of cedar beams" (I K. vii, 12), that is to say, stone for four or five feet, then a wall-plate to fix the uprights which carried the roof; the upper part of the wall was, then, in brick, and the whole much like mediaeval half-timbered work. The stables are quite unmistakeable, and explain portions of similar buildings found at Tell Hesi and Gezer; rows of *mazzeboth* and "sacred places" are out of date.

An interesting scaraboid is described by Mr. Staples. It bears the usual figure of the Egyptian king as Mentu, a winged gryphon, with double crown and kilt, *onkh* before it, and a locust in the exergue. The three Hebrew letters are *kh-m-n*, the "image" of the king. More than twenty parallels of gryphons are illustrated, but are hardly needed to explain the usual emblem of a conqueror. A close parallel in Palestine is the seal (*Beth-pelet* I, 10, xxxv, 427) with a royal Mentu sphinx and reading L. HYM.

Churches at Jerash. By J. W. CROWFOOT. 8^{vo}. 42 pp., 14 pls. 1931. (Brit. School of Archaeology in Jerusalem.)

The expanse of ruins at Jerash attracted those whose interests lay in the Christian period, rather to the neglect of the greater problems waiting in Palestine. The clearance of the ruins has been carefully done, with detailed plans and studies of the architecture. The most attractive feature was the mosaic work of the pavements. The style is most like the North African mosaic. The coloured plates of the mosaic views of towns show what impressed those who saw them, the square corner towers, the domes in Alexandria, ridge roofs in Memphis, the white colonnades seen through the gates, the arched gateways lighted by a lamp hung in the middle. While the views are frankly mere symbols, yet the distinctive features must be true. Now that this work is done, Mr. Crowfoot is engaged on the historic problems of Samaria, back to Omri and the old town which he took over.

Greek Ostraca. By J. G. TAIT. Vol. I. 8^{vo}. 181 pp. 1930. (Egypt Exploration Soc.)

With perseverance Mr. Tait has copied here 1170 ostraka of different collections. More than a third belong to our collection in University College, London, and another third are of Ptolemaic age in the Bodleian. The principal results of such documents are in the directory line, for which so much modern publication is storing material, and in the more immediate interests of prices and law. Tax receipts, and registers, are the largest class. Among those here is a list of outfit in the second century B.C. Saddle 120, bag 340, sack 75, cloak 30, alabaster flask? 300, sandals 110, scrap box 40, purse 10, winter cloak 60. These prices seem high, even if in debased Ptolemaic drachmae, yet they cannot be in copper (Bodl. 321). The artaba of wheat at 4 B.C. was 3½ drachms, or about 20s, a quarter (U.C. 195). Wages in the second or third century A.D. were 12 obols for a man and 8 for a woman (U.C. 339): the value entirely depends on the debasement of coinage at the time, when it was rapidly waning. The prayers for the Emperor are of liturgic interest (U.C. 415). The Red Sea ostraka stated to have been found at Koptos were bought there, but may have been brought over in recent times for sale. It is to be hoped that Mr. Tait will have opportunities in the more grateful field of papyri.

Upon Slavery in Ptolemaic Egypt. By W. L. WESTERMANN. 4^{to}. 69 pp., 1 plate. 18s. 6d. (Milford, and Columbia University Press) 1929.

This discusses a portion of the law on the sale of slaves, preserved on a papyrus of about 190 B.C. The tax on sales was—as usual—farmed out, and the law regulates what the contractor could claim. The tax was to be collected by the notary when recording sales in the public market. It amounted to 1 in 12 from the seller, the same from the buyer, and a 1 per cent monopoly to buy

up the services of the piratical slaver Dicearchos, beside 1 in 24 brokerage fee to the city. Altogether there was a clog of 22% on every public sale of a slave, which must have tended to drive transfers into private dealing. If it were agreed that all the tax should be paid by one party, the total was to be $24\frac{1}{3}$ percent. Any one outbidding after a sale must pay 1 in 24 fresh brokerage. On slaves sold under a legal execution for debt, the total charge on the buyer was 21%. On those seized for debts to the royal treasury, 19%. As this would simply reduce the price realized, the treasury really gained nothing. On persons enslaved for debt, the charge was 5% from the lender, the same from the borrower, and 1% for registration.

The system of taxing sales of slaves existed in the sixth century at Cyzicus, and probably in Athens. Without a legal registration there could be no legal hold on the slave, so the State was almost bound to get the profit of a quarter or fifth of the value at every change of ownership. A summary of the new material on slavery shows four sources: (a) foreign wars, (b) purchase, (c) selling for debt, (d) by birth. Prices range for men 112 to 150 drachmas, about half a year's wage, for girls 50 to 300. Informers about fugitive slaves had 100 drachmas for three slaves. The taxes raised were on import, on sales, on debtor slavery, and on manumission.

Races of Africa. By C. G. SELIGMAN. 16^{mo}. 256 pp. 1930. 2s. 6d. (Thornton Butterworth.)

This is a masterly summary of the distribution, structure and customs of the principal divisions of the peoples in Africa. Dealing with Egypt, the surrounding kindred tribes are described, but without regard to the cultural and skeletal evidences of conquering migrations into Egypt from outside. Such changes do not make great physical differences, though all important in the history of culture. The self-contained form of Africa renders the racial questions simpler than they are in the great area of Europe and Asia.

Egyptian Sculpture. By M. A. MURRAY. 8^{vo}. 207 pp., 55 pls. 1930. 15s. (Duckworth.)

This work gives a fully detailed study of the changes that have passed in the long range of Egyptian history. Seven periods are set out, and in each the statuary and reliefs are described, with some notice also of the painting. To begin with, the methods of the artist are stated, the building of composite figures, the varieties of relief and of painting, the mode of training, the materials, the canon of proportions in each period,—all of these should be understood and realised.

The Amarna style is accepted as a fact *de novo*, and excluded from a Cretan descent. Such a revolution seems to need an ancestry; may it be that Mitanni was the basis for this growth? So far we know nothing of the north Euphratean work, apart from the clumsy Hittite style. In the late times of the xxv–vi dynasties, some notice of the fine ushabti carvings in stone and glaze may supplement the scanty sculpture of a larger size. The striking growth of the art in every respect during the Ethiopian occupation deserves more credit; it arose entirely before the Saite rule which only took over the movement full grown. Twice or thrice before, the same outburst followed a southern conquest, in the iird, xth, and xviii dynasties.

The block-maker and printer should supply more gradation and lighter printing.

The account of the mode of treating the details in each statue will be a stimulation to observing such facts. The work is worthy of its subject and will be a valuable text book for study.

Détails relevés dans les ruines de quelques temples Égyptiens. By E. NAVILLE. 4^{to}. 67 pp., 54 pls. 1930. (Geuthner.)

This publication is of material which had been collected by the late Professor Naville; it has been arranged by the care of M^{me} Naville, and part of the text completed by Prof. Jéquier.

The first part deals with Abydos. Four plates give the ceremonial scenes of the Apet festival, from the chambers, usually locked, beyond the Table of Kings. There follows an account of the sculptures in the temple of Rameses, with 27 plates of the scenes in the Khita war, and 5 plates from scenes of offering to Min. Various well-known subjects appear, as the Shardana guard, the beating of the spies, the drowned Hittites; less familiar at the Ramesseum are the processions of captives with elbows tied together, and the piles of cut-off hands; three pages of text also remain. One plate gives the detail of hieroglyphs in colour, copied by M^{me} Naville. A good example of the ritual dance of the king holding vases, concludes this part.

The second part contains 15 plates of the sculptures of Behbit el Hagar drawn by M^{me} Naville from the paper squeezes taken in 1895-7. Owing to the crowding of blocks in the pile of ruins, few of the scenes were complete enough to be joined together. At the close are two plates of copies from Sebennytyos. All of the sculptures are Ptolemaic.

Memphis à l'ombre des pyramides. By J. CAPART. 4^{to}. 415 pp., 391 figs. 1930. 35s. (Vromant.)

This work aims at the interest of the general public; illustration on almost every page, heavy paper (5 lbs.), a lack of petty detail of dates and dynasties, all mark the drawing-room book, and we hope it will reach many who only have romantic ideas of mysteries and mummies, and so bring about a better frame of mind. There is moreover much that students should not miss, in illustrations that are new and useful. There is a division into fourteen chapters, some dealing with the principal localities, others grouping examples of the foreign wars, religion, art, high and low life, and other points of view. A full index of illustration, by number and by subject, is supplied. After this we should note what new material this contains for reference. The valuable illustrations are, p. xiv, xv, air plans of Saqqara and Gizeh. Fig. 43 head of Dad-ef-ra, also 162. 63 casing of third pyramid. 69 temple of Sahura. 72 Nile figures of Sahura. 86-103 work of Zeser. 131 statue of Zeser. 155 Decree of Uaz-ka-ra. 177 Decree of Snefru, Dahshur. 243 Ivory figure of Menkaura. 251 Hetep-heres carrying-chair. 296 Shepses-kaf head.

Egyptian civilisation, its Sumerian origin and real chronology. By L. A. WADDELL. 8^{vo}. 223 pp., 21 pls. 1930. 12s. 6d. (Luzac.)

Previous books by Colonel Waddell have dealt with subjects so far apart that few could really estimate their claims. This last work, however, deals with familiar material, which can be handled with certainty, and a decisive valuation

made of the mode of treatment. The tablets of the 1st dynasty are here transcribed line by line, Sumerian signs are placed below each, and translated. Let us take the most complete tablet of Aha. First are two regular sacred barques on water, of well-known type, but they are translated *lugal* = king. Then come two supposed signs, which do not exist, but are read *Min-as*, a king's name. Then the well-known figure of a shrine, with curved roof, is wrongly copied and supposed to read *Bara* = Pharaoh. This shrine has an enclosure before it in which is the familiar standard of Neit; this is impossibly transformed, compared with a sign to which it has no resemblance, and said to read *Mushsir* = Egypt. At the entrance of the enclosure are two poles with a plain triangle on each; these triangles are made into complex signs, without any authority, and compared with signs which have no resemblance. Not a single Egyptian figure is correctly copied, and there is scarcely any Sumerian sign which is like the supposed original. The next portion is similarly treated, and the supposed *Min-as* name is extracted from entirely different signs from those first taken.

The second line is equally impossible: many strokes are added in order to form a resemblance, though there is no trace of such on the original. The baseless additions, and lack of correspondence, even after such doctoring, must condemn any such treatment. To any one familiar with the early Annals the meaning of the line above dissected is quite simple. In one year there was a festival of two sacred barques, the shrine of Neit was built, and there was a feast of the birth of Amiut, all under king Aha. The chronology is equally impossible, seven centuries later than the shortest Berlin dating. After this, it is useless to try to follow out further conclusions.

Propos sur l'Art Égyptien. By JEAN CAPART. 8^{vo}. 306 pp., 188 figs. 1931. (Vromant.)

These lectures were delivered with the useful purpose of interesting American audiences in the more spectacular scenes and discoveries, such as are already familiar to our readers. However necessary this exciting view of the subject may be to gain attention, it leaves an impression of romantic treasure-hunting, which hides the hundred-fold or thousand-fold effort of dreary work necessary for results. The illustrations here are abundant, but would have been better for lighter printing.



The Land of Troy and Tarsus. By J. E. WETHERELL. 8^{vo}. 264 pp., 16 pls. 1931. (Religious Trait Soc.) 7s. 6d.

This book will open a much wider horizon to some who may only think of Asia Minor in terms of Paul's journeys. The Hittites, Argonauts, Amazons, Troy, the mother-goddess and the more historical persons are all outlined, before reaching familiar ground. There is not a hint that Schliemann entirely mistook the date of the city of Troy, and that the treasure which he found was far older than the legend. Artemisia's capture of Rhodes is mentioned, but the story of her brilliant scheme is not given. In a book of this year it is out of date to say that the Taurus pass remained inviolate and "now seems to be closed forever to the audacious invasion of shrieking locomotives." That railway has long been the best route to Palestine.

JOURNALS.

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Annales du Service. xxx, i.

KEIMER, L.—*Quelques hiéroglyphes représentant des oiseaux.* This article touches on many matters. The quail  is named . The tuft on the front of the *ba* bird is stated to be a caruncle: such is unknown in Egypt now. In the best early hieroglyphs it is on the throat; that is the position of the excrescence on the jabiru (*Mycleria Senegalensis*) found on the White Nile and Bahr el Ghazal; this bird has been brought to the Cairo Zoological Garden. The black ibis is the *gm* bird: the white ibis is the *hb* bird of Thoth; the crested ibis, *āh*, is the *Ibis comata*.

YEIVIN, S.—*Ptolemaic system of water supply in the Fayyūm.* This describes supply pipes of brick laid along streets at Philadelphia, and probably connected with stone-lined pits in the street for drawing water. Over these pits were square structures with doors. The model of one such, with a drinking trough outside, is in University College.

MAHMUD HANZA.—*Excavations at Qantir.* Inscribed blocks of Ramessu II have long been known there, lately great quantities of fragments of coloured glaze tiles have been found. In the government work were found many ostraka naming Pa-Ramessu-Meramen, the Delta residence of the Ramessides. The glazed work included a Semitic captive, figures, tiles with alabaster inlay, and multicolored glazes, and beads; while the quantity of moulds and fragments prove that the actual factory was here. Some moulds are of Merneptah, Sety II, Ramessu III, VIII, and X. Pottery nozzles of bellows were found, probably from the glazing furnaces.

DARESSY, G.—*Recherches géographiques.* This deals with the names in the Hermopolite Delta nome, Panephrisis and Menzaleh, the Onuphris nome and monuments of Tell Tébillah.

WAINWRIGHT, G. A., and BANNISTER, F. A.—*A Graeco-Roman glass head.* This appears to be the head of a king (Ptolemy?), of manganese glass, about 70% SiO₂, 20% K₂O, 10% CaO.

WINLOCK, H. E.—*Late dynastic embalmers' table.* This a slab of hard limestone, 88 inches long, 43 wide, and 10 high. At the end it slopes down, draining into a curved basin. Along the sides are carved the lion's head and legs usual for Egyptian couches. It has a raised band all round the sides. It was found about Medinet Habu, and it is suggested that it was made for the embalming of one of the queens of the xxvth or xxvith dynasty.

Annales du Service. xxx, fasc. 2, 3.

JÉQUIER, G.—*Pyramides du Moyen Empire.* The pyramid of Ra-user-ka Khenzer, with *nebti* name *uah-mestu*, has been examined, and the black granite capstone was found. Stones are dated in years 1, 3 and 4. A diorite statuette, without name, is attributed to this king. It is presumed that he is No. 16 in Turin papyrus of xiiith dynasty.

Another pyramid made larger than that of Khenzer is to the south-west, but no name has been found. The wavy walls are left unexplained; this form of construction, however, is for stiffening, and being thinner is economical of bricks. The passages and trap-doors are like those of the Mazghuneh pyramids. Plan and section are given.

Near the pyramid of Pepy II was found the pyramid of Ra-qa-ka Aba (vii. 3). A passage led to the single burial chamber, of which the E. and W. walls have been destroyed. This was lined with texts. Parts of 450 lines of text remain. A general idea of the pyramid temple of Pepy II is given, but no plan.

EMERY, W. B.—*Archaeological Survey of Nubia, 1929-30.* About 50 miles' length has been examined, and 2,000 graves recorded, but where a cemetery did not seem of importance, only specimen graves were cleared. The contents of some tombs are sketched (not typed), and there does not seem to be any fresh light on the period.

LAUER, J.-P.—*Restaurations ... dans les monuments de Zoser.* The question of the treatment of the fragments of building was settled by restoring them as far as possible into position. The fresh blocks, in place of those missing, are retreated on the face; the fragmentary pieces were built up with brick and cement. The long passage has been roofed, to protect the row of fluted columns.

Étude sur quelques monuments de la III^e dynastie. Here M. Lauer describes details of some of the buildings around the Zoser pyramid.

SAMI GABRA.—*Fouilles à Deir Tassa.* This account of an attempt by the Service of Antiquities to follow up the discoveries of Brunton, shows no knowledge of the details of the prehistoric ages, and a complete confusion of the Badarian and the earlier Tasian period. At least the writer does reply to the worse error of Firth misplacing the Badarian civilisation. No advance can be made without much closer attention to the evidences already published.

CHEVRIER, H.—*Travaux de Karnak 1929-30.* The iiird pylon has been partly taken down and rebuilt, and a great block of sandstone of Tahutmes II found, also one of Amenhetep II in alabaster. In the south side of the pylon, more has been obtained of the monument of Senusert I which it is hoped may be completed.

In the hypostyle hall some columns have been consolidated by thin cement under pressure, and ferro-concrete bars used to secure parts in place. The monument of Amenhetep IV has been further cleared. Among the pieces of statue is one of that king, nude, and asexual.

The temple of Sety II has been cleared and consolidated.

GAUTHIER, H.—*Le sarcophage N° 6007*. This red granite sarcophagus from Gizeh has, carved in relief on the lid, the outstretched skin of a leopard, another example of such carving is on a sarcophagus found by Reisner (54934 Cairo). Similarly skins are painted on models of sarcophagi on funeral boats, now in New York. It is suggested that such skins represent that worn by the priest in the funeral ceremonies. The inscriptions of Ar-ne-ur on 6007 are discussed.

KEIMER, L.—*Notes Additionnelles*. This reports additional examples of the jabiru and the *Pluvianus aegyptius*.

FIRTH, C. M.—*Excavations at Saqqara 1929-30*. The basalt paved corridor on the east of the pyramid of Userkaf has been traced. The pyramid temple of Unas has been cleared and planned. The gateway of red granite had been left unfinished, and was completed by Teta. This is of historic importance, as proving that there was no political dislocation between the vth and vith dynasties. A small pyramid, with single passage and chamber, south of the temple, is compared with a small pyramid by the temple of Userhaf, and the tomb of Zeser at the south of his great court. The latter contained a gilt wood baldachin, and it is suggested that all of these three structures were temporary burial-places, before the completion of the pyramid. If so, this custom would explain one of the small pyramids adjoining the Meydum pyramid.

The galleries discovered by Barsanti in 1900, below the Unas temple, were briefly examined. They contained fragments of stone vases and sealings of the iind dynasty, presumably belonging to a great tomb which was cleared away by Unas.

The ruins of a large pyramid east of that of Teta were excavated, but no name was found. It is conjectured that this belonged to Aty.

LUCAS, A.—*Ancient Egyptian wigs*. These have been examined, and it is concluded that they were made of human hair, or a few of vegetable fibre in late times, and none of animal hair or wool.

ENGELBACH, R.—*A monument of prince Merneptah*. This block has figures of Ramessu II offering, and of "his son, the prince, generalissimo, royal son, Merneptah *maa kheru*." The figure to whom he is offering is Isis, but that is over a complete erasure, which it is proposed was that of the god Set. It is concluded that Ramessu usurped a previous monument and that Merneptah was able, during his father's lifetime, to remove the figure of Set.

Comptes-rendus. 1930 Oct.-December. The cuneiform tablets of Ras Shamra are alphabetic, using 28 letters: the language is Phoenician with Aramaean traces, in some respects it approaches Assyrian rather than Hebrew. The subjects are accounts, letters, and ritual. The main document is a sort of epic poem of 800 lines; the principal personage is Taphon, and deities named are Anat, Alein son of Baal, Asharat, Ashtart, Dagon, El Hokmot, the god of wisdom, and Din-El the justice of god. (Compare the great dedications at Constantinople to the Divine Wisdom and Divine Peace.) The date of these tablets is about Rameses II.

At Khan Sheikhun, 25 miles north of Hama, stands a mound 60–80 ft. high; it is formed of twelve ft. of earliest settlement, about 2000 B.C. For sixteen ft. above this is a settlement with more pottery. The upper thirty ft. is of earth heaped to carry a platform for a city on the top. This was walled with brick and stone, and was of the Bronze Age: over its ruins were four successive towns of the Iron Age. The second of these is of about 700 B.C., probably the Assyrian Ashkhani. The highest level was abandoned about 300 B.C.

At Tell 'As, about three miles west of the above, is a cemetery; the tombs abound in pottery, some like the earliest of Palestine.

At Suban, eleven miles north of Hama, there are four Tells of the Bronze Age.

Mouseion, No. 8.

ZENGHELIS, G.—*Les Bronzes Antiques*. Having obtained unexpected treasures of bronzes from the sea, the Greek government entrusted them to the professor of chemistry at Athens, and his new methods of cleaning seem to succeed. The process is repeated soaking for long periods in distilled water, aided by a more rapid treatment of the surface with a steam jet. This appears not only to remove the salt, but to loosen and detach the grosser corrosion without disturbing any fixed patina. A discussion follows as to whether any artificial patina was intentionally formed by treatment anciently. The conclusion is that a lustrous black sulphide of copper is ancient, being used on special parts of statues.

The rapid green corrosion of copper was studied. That it is not organic was concluded because after baking the bronzes at 140° C. they were still liable to be attacked. The treatment with aluminium and glycerine jelly did not suffice to remove all the chlorine in five weeks. Electrolytic reduction to metal was then tried, but needed to be continued for five days.

Bulletin of the Museum of Fine Arts, Boston. June 1930.

G. A. R., N. F. W.—*The Art of seal engraving in Egypt in the Middle Kingdom*. The excavations at the forts and cemetery at Semna provided 183 scarabs and other seals; from the fort at Uronarti came nearly 5000 impressions, from about 500 different seals. The whole collection is of dynasty xiii, probably of the first half. The varied objects on which the sealing had been attached are impressed on the back of the clay, in a way so familiar at Kahun and elsewhere. About half the impressions were from doors or sacks. The large official sealing had the countermark of the private seal of the official. This was evidently like the large bronze seal, with a seated Horus figure for a handle, now at University College. Drawings of 10 official seals, 18 with private names, and 139 pattern seals are given here.

NOTES AND NEWS.

In our September number last year (p. 83) reference was made to the division of antiquities from the Field Museum expedition at Kish. We are glad to hear from Mr. Field that the groups of objects are kept complete, although they have to be allotted to the Iraq Museum, the Field Museum Chicago, and the Ashmolean Museum Oxford.

Miss Murray writes "Prof. Seligman has called my attention to a wrong description of Nyakang in my article on the 'Bundle of Life.' The exact description is given in Prof. Seligman's *Cult of Nyakang*: 'an object called Nyakang, which is kept wrapped in *dammur*, i.e. the common cotton cloth of the Sudan'; and in the same author's article 'Shilluk' in the *Encyclopaedia of Religion and Ethics*, 'his effigy called Nyakang, which is kept wrapped in a piece of *dammur*... My informants said that Nyakang was more or less cylindrical in shape and two to three feet long, by, perhaps, six inches broad.'"

The work of the British School at Old Gaza is fully reported at the opening of this number. The lectures to the public have been largely attended, and the annual exhibition will be held at University College, July 6 to 25. The publication is in progress, and it is hoped to print in the autumn.

Meanwhile the need of funds for this large field of historical research is more insistent than before. Fresh students are pressing to come, the opportunity is great, and the limit of our discoveries is solely the public support of the excavation. We can easily double our output of results if those who care for knowledge will double the means of work.

PERE MALLON'S EXCAVATION OF TELEILAT GHASSUL.

TELEILAT GHASSUL is situated on the east side of Jordan, about six kilometres north of the Dead Sea, five kilometres east of Jordan, and four kilometres west of the Mountains of Moab. It is almost in the centre of the plain which is named the Arboth Moab (בְּעֶרְבַת מוֹאָב) in Numbers xxxiii. 48-49, where the Hebrews encamped before crossing the river. The number of *tells* in this region indicates that in the Copper and Bronze Ages the district was much more densely populated than it is to-day.

Teleilat Ghassul is one of the most ancient of these tells. They are mounds formed mainly of the accumulated debris of ruined towns. Attention was drawn to them not so much by their height as by the numerous fragments of pottery, of mortars, mills or presses, and the flaked flints which reflected glints of sunlight in all directions. This surface debris indicates a very early occupation.

Excavations were begun in the winter of 1929-1930, and continued from November 1930 to March 1931, under the directorship of Père Mallon, of the Biblical Pontifical Institute of Jerusalem. Altogether about 2,500 square metres have been excavated in the southern tell, while soundings have been made at various points to determine the nature and extent of the ruins.

In his preliminary report of last winter's excavations, Père Mallon acknowledged the help received from Dr. Koeppel, of Tübingen, and M. René Neuville in Jerusalem.

The Natural Soil—A Sea-floor.—Excavation revealed that the natural soil here is sand. The whole valley, in fact, is an ancient sea-floor, consisting of an immense stratum of clay deposited when it was under the sea, on which rests a layer of sand 2-2½ metres deep, deposited at the close of that period. As the sea retreated, another layer of sand of less depth was thrown up by the movement of the water on the top of the first layer. This is alluvial sand, and is distinguished from the diluvial deposit chiefly by the presence of small pebbles. The whole ruin thus rests on sand, alluvial or diluvial, according to position, for the last layer had already been partly removed by erosion before building had begun.

The deepest sounding reached the natural soil at about 5½ metres, or 18 feet. The tell slopes gently in every direction in diminishing thickness toward the circumference where it fades into the plain.

To the south, on the borders of the Wady Jarafa, suburbs were found; including these, the whole ruin measures roughly 800 × 400 metres.

Four Strata of Occupation.—On continuing the shaft left open in D1 of the previous excavation down to natural soil at 4½ metres (15 feet), the excavators discovered that the mound contains four different floors, each separated by a depth of only about one metre of accumulated debris (see fig. 3).

As each floor is covered by a more or less thick layer of ashes, it is manifest that this town had been destroyed by fire on four different occasions, with no great interval of time between them, and on each occasion fresh buildings had

been erected on the ashes of those destroyed. These four floors with the reconstructed buildings were found at five different points of the tell, as well as on the southern slope to about the centre of the slope. Thereafter the depth of debris between the four floors decreased, till at the extremity of the tell only two floors could be traced.

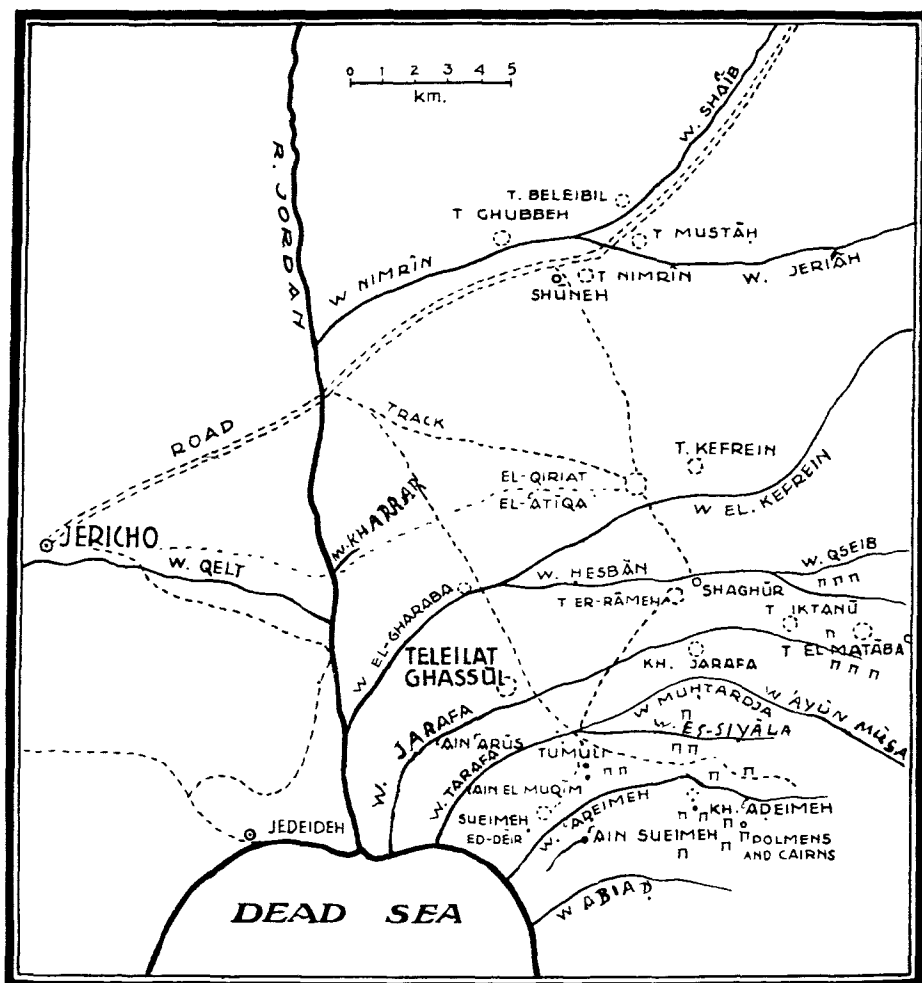


FIG. 1.—TELEILAT GHASSUL AND SITES NORTH OF THE DEAD SEA.

This is not due to erosion by wind and rain, but indicates that at first the town occupied only the central space of the mound and was extended in the course of reconstruction. According to Père Mallon, Towns I and II, the lowest two, occupied only the central part of the site, while Towns III and IV, the later occupations, covered a more extended area. Stratum III is not so deep as the others, and at points is barely distinguishable from Stratum IV. Towns III and IV had thus apparently been destroyed within a much shorter interval of time. The pottery found in the suburbs shows that they belonged to the same period as the latest occupation. Town IV was thus by far the largest.

The following is Père Mallon's summary of evidence from the various strata :—

On the surface under recent deposit the section revealed buildings of mud alternating with ashes, which contained bricks reddened by fire, and below these

a layer of ashes. Excavation revealed stone walls and silos. These are remains of the latest town, IV. Below the layer of ashes the section showed practically the same as above. In excavation at this level, a ring-stand of stone for a water-jar and a hearth were found. This represents Town III. Underneath was a layer of ashes, undulating and stratified.

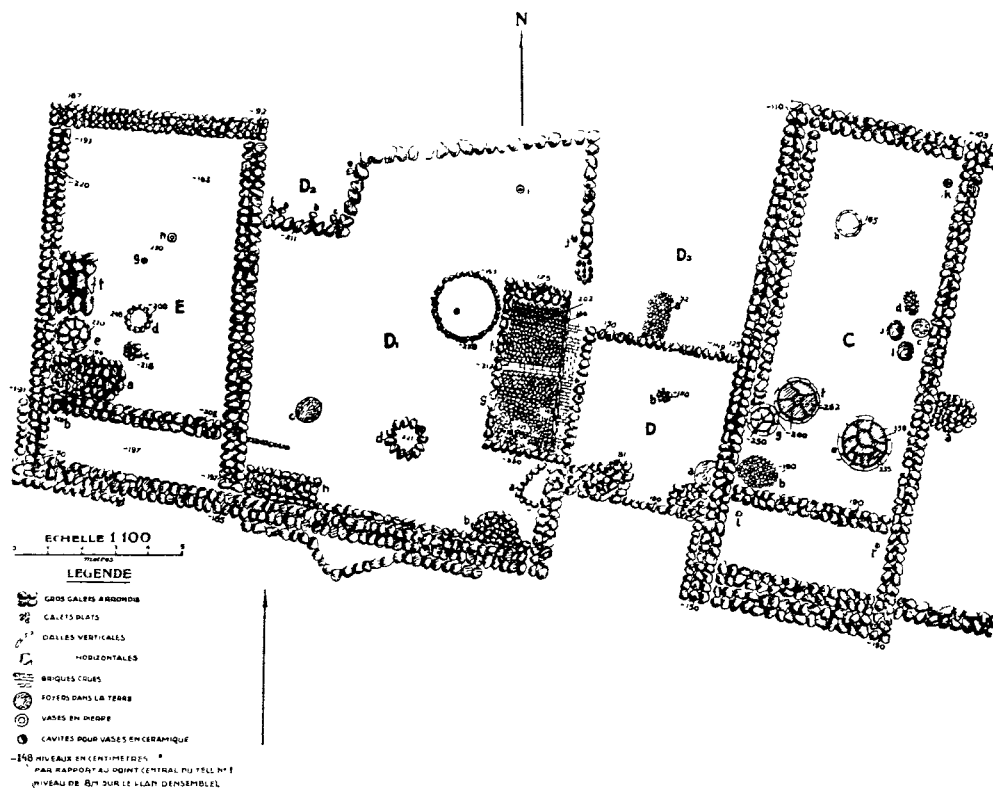


FIG. 2.—BUILDINGS IN TOP STRATUM OF THE TELL. SCALE, 9:2000.

Below this the section showed bricks in disorder resting on a layer of ashes, not stratified, while the excavation yielded a wall of stone, mortars, and blocks. These are remains of Town II.

Underneath this again, the section showed broken bricks, debris, fragments of a mill or press, some ashes, while excavation discovered a pavement of bricks. This represents the earliest occupation, Town I, and it rested on diluvial soil.

The Pottery ; Dating.—Five and a half metres of accumulated debris on such a site of itself suggests a long period, but fortunately the pottery, and other objects found, leave no doubt as to the limits of occupation.

The pottery, according to Père Mallon, falls into two main groups: but perhaps it might be more correct to say three groups, viz., that of the Neolithic period, succeeded by that of the Copper Age, which again is replaced by the pottery of the Bronze Age, and that apparently of the earlier half of this period. The occupation of the site, therefore, dates from Neolithic times down to, say, the middle of the II Bronze Age: *i.e.*, from some time prior to 2500 down to 1900–1800 B.C. At the latter date, Town IV had been completely destroyed by fire, and the site was never again occupied.

So far as the pottery is concerned, the evidence for the II Bronze Age civilisation seems to rest on the discovery of pots with widened mouths or necks, in the latest occupation. As Père Mallon suggests, this perhaps can hardly be regarded as conclusive in itself, especially as the horizontal lug-handle found in abundance in this latest town is no more waved; and there is a complete absence of piriform vases, so characteristic of the Hyksos ware, as well as of pots with handles from the shoulder to the neck or rim, types common to the II Bronze Age. There are, however, other evidences which suggest that the town was occupied at least in the earlier half of the II Bronze Age.

No Metal.—The absence of metal in any form in the lowest three strata points to a date earlier than the II Bronze Age.

The bone and flint implements of the lowest stratum are found in all the strata. About one hundred needles or pointed bone implements, and a thousand chisels, axes, or gouges of bone or flint have been found. This profusion, along with the fact that so far no metal has been discovered, except on the very surface, indicates that even in the period of the latest town, metal was not yet in general use on the site. Bone continued to be used in Palestine till a much later period, but the complete absence of bronze or copper is more conclusive for an early date.

The profusion of flints found is not inconsistent with assigning the latest occupation to the II Bronze Age. Flint continued to be used, as Bethpelet has proved, right down to, and through, the earliest Iron Age: and even then Neolithic types were reproduced. All we can say of flint is that, as metals came in and became more easily procured, flint-working degenerated and flint came to be used only where the people were unable to obtain metal, as in the plains of Southern Judea.

Père Mallon, who is a recognised authority on flints, states in his unpublished report of these excavations that, by the end of the II Bronze Age, flint implements were reduced to a few types and changed in form. "The fan-shaped scraper became thicker and heavier, the sickle became wider: the chisel disappeared entirely, and the short, thick-set knife, with one edge and a thick blunted back, was replaced by a fine, long blade with two parallel edges."

Now Town IV, the latest, has furnished three or four blades of this kind, an insignificant number certainly, alongside of the mass of knives found with one sharp edge and blunt back, but Père Mallon regards this as an obvious indication that at the time of its final destruction this town had reached the period of transition which would have ended in the civilisation of the II Bronze Age.

Bronze Objects near the surface.—This conclusion is further confirmed by the discovery, near the surface, of the uppermost stratum (Town IV), of several objects in copper and bronze, viz., an axe of archaic type, a fragment of another, 7 broken points (of spears?), and several other undetermined fragments. Père Mallon suggests no exact date for the axe.

NOTE.—One of these fragments has been analysed at the Paris School of Mines at M. Neuville's request. The analysis gave 7 per cent. tin. A bronze ring from the cave of Umm Gatafa, of which the upper stratum showed the same civilisation as Teleilat Ghassul, had the same composition.

The earliest two occupations, Towns I and II, both belong to the same age, Neolithic to Copper.

The transition to the II Bronze Age begins to appear in Stratum III and is continued in Stratum IV. Apart from these indications of transition, the same civilisation persists through the four strata. The bone work is the same. The flint work is the same, excepting the knives above mentioned found in Town IV. The pottery has the forms characteristic of the Copper Age, *e.g.*, the horn-shape, the footed bowl or jar, the spouted jugs, the decoration, and, above all, the use of the comb.

In masonry, the same type of brick, made by hand without a mould, is used throughout.

On the southern slope the builders of Town IV follow the plan of their ancestors in their houses, and raise their walls upon stone foundations laid on the ancient brick walls.



FIG. 3.—EXPOSURE OF FOUR LEVELS, I, II, III, IV, OF FLOOR LEVELS IN THE TELL.

The clearest proof, however, of the unity of the civilisation is supplied by the signs and picture-writing found on stones and pottery. They are described below. These inscribed objects were found as profusely on the surface level as in the lowest, and indeed throughout all the strata.

The civilisation is, therefore, the same throughout, and proves the occupation of the site by the same people from first to last. That no Hyksos pottery seems to have been found on the site proves that, though the successive destructions may have been the work of Hyksos people, they never occupied the site. This may have a bearing on the date ultimately assigned to the final destruction of this town.

The civilisation is obviously not a local product, but an immigrant civilisation—the same as we find in practically all other sites excavated and described as the Copper or Early Bronze, brought by the same people, and supplanting the Neolithic Cave-dweller civilisation. These immigrants are generally regarded as Amorites.

A Sister Town.—So far we have spoken only of the southern mound. This mound is separated from the north tell by a fairly wide depression running east to west. There were thus two contemporary sister towns standing side by side, much as we find at the ruins of ancient Tiberias.

We say contemporary advisedly. Everywhere the debris on the surface of the north tell and the results of soundings indicate the same civilisation of the same age as in the southern tell. There are traces of violent conflagration, strata of ashes succeeded by mud and debris, with methodical levelling and reconstruction. If, as Père Mallon suggests, the southern tell is to be identified with Sodom, this sister town may be Gomorrah.

Destruction of the Towns by Fire.—It is obvious that the whole of Town IV sank in a vast conflagration. Heaps of ashes, with broken and calcined stones, fill the ruins, and at some points reach even to the surface. So far as can be judged, Town III sank in the same way. As for Towns I and II, many of the deposits of ashes are from hearths, but others lie in strata like those of Towns III and IV. Till further excavation has been made, Père Mallon reserves his judgment as to the nature of the catastrophe which destroyed Towns I and II.



FIG. 4.—LONG CHAMBER ON THE EAST OF THE PLAN, FIG. 2.

The Ashes.—The ashes found, extremely dirty, leached formerly by the rains and later by the water of infiltration, contain little of their original ingredients. Koeppl compares them with the ashes found in Jericho, Beth-shemesh, and Bet Mirsim. Analysis shows 70 per cent. to 90 per cent. of sand and the rest particles of carbon, with at Teleilat Ghassul the addition of some vegetable matter. In the lowest strata the proportion of carbon is even less, as we should expect, and the strata are more shallow and more mixed.

Inscribed Objects.—A considerable number of objects bearing signs or writing of a crude character has been found in the site—potsherds, pebbles, carved stones, seals, and bricks. These are found in all four strata. So far,

most of these have come from Town IV, the latest occupation, for the reason that this stratum has been most thoroughly excavated.

1. *Potsherds*.—Altogether about 300 potsherds bearing these signs have been found. Frequently the inscription is mutilated by the broken edge of the sherd; but more frequently the distance from the break indicates that the inscription as found is complete. It appears, therefore, that the inscription or stamp was incised on the complete vessel. To draw up a list of these signs is the first step towards interpretation, and not an easy task, for it is by no means clear, whether the signs as they stand, separated or not, form one sign or several.

Rather more than 150 of these sherds bear only one sign or picture. The others have two, three, four or at most five or six. Repetition of signs on the same sherd and on other sherds is of frequent occurrence. They were incised always on the outside of the vessel, but on very varied positions on the base, on the sides, on the handles, at different heights, and near the brim. Most of them were incised after the vessel was baked, perhaps by the owner. These, therefore, would appear to be marks of the owners who used the vessels.

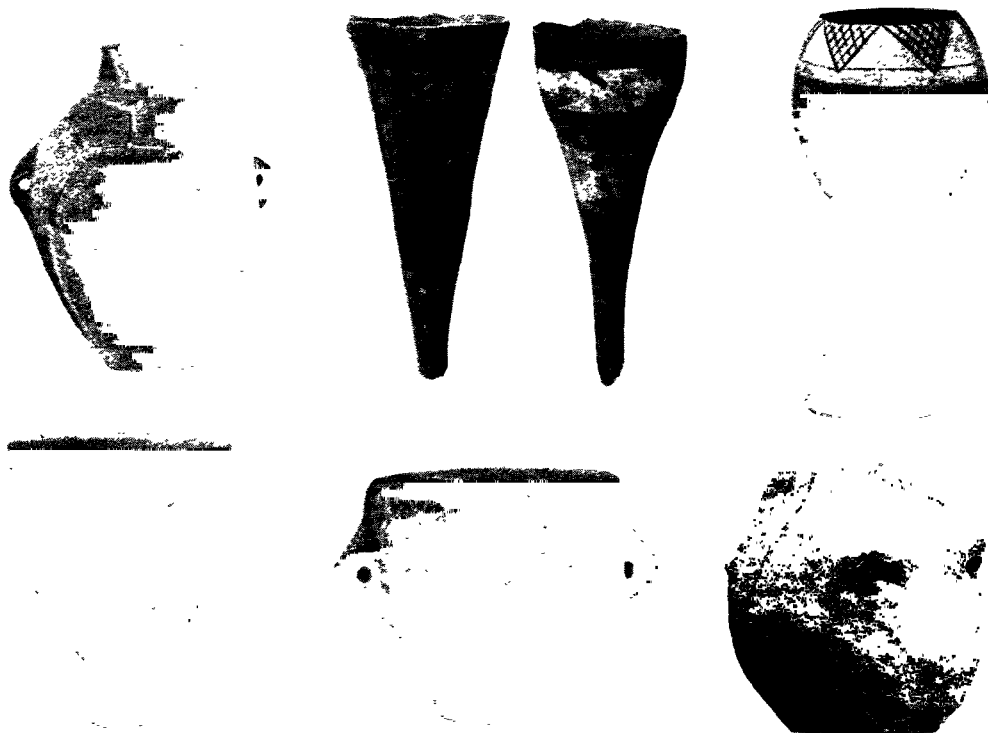


FIG. 5.—POTTERY FROM TELEILAT GHASSUL.

2. *Stones and Seals*.—With two or three exceptions, the inscribed stones found are complete. They number about one hundred and seventy. According to their external form they may be grouped as follows:—

(a) Carved seals, one side smoothed and polished for the inscription, the other prepared for suspension, frequently with a hole bored. One of these impressions is incised on the end of a fossil (*Actaea solomonis*). All these seals have several signs.

(b) Weapons and tools; two mace-heads and some rounded chisels.

(c) Stones and pebbles of various shapes. Some are unworked, left as found in water-courses. Others have been carefully flattened for the inscription on one side, by rubbing or polishing; some have one or two holes for suspension.

One specimen is unique. It is shaped like a locket and inscribed on both sides. In size these vary from 1 to 10 centimetres. On the largest the inscription generally forms a picture panel divided into two or three sections, surrounded by a frame in relief, consisting of a notched edge.

3. *Bricks and Similar Material.*—(a) Bricks handmade without a mould, with large, deep stamp impressed on the soft material.

(b) Lumps of clay made in the form of stamps, shaped by hand and sun-dried, hardened and tough. With one or two exceptions, the marks on these are the same as on the stones and sherds.

General Remarks.—The number and variety of these inscribed objects indicate that they were in constant use and formed part of the daily life of the people.

All the signs have a family likeness and form a well-characterised group. The straight line is the dominating element. Curves are very rare—a fact which is probably due to the material being generally hard and the instrument used doubtless a graving tool or a flint point.

Any study of them, while the excavations are uncompleted, must of course be provisional, but we note that as these inscribed objects are found in the very lowest stratum, they are therefore of great antiquity, and had been brought in by the original builders of the town, in their earliest forms at least, for development is observable as in the case of the pottery.

Père Mallon does not mention the depth at which any particular examples were unearthed; but states that these inscribed objects were found in all four levels. He gives also one specimen, a small pendant bearing a mark like the Greek letter Psi with four drill holes arranged in oblong form above and below its arms, which was found “in a cutting at Tell Iktanu at the same depth as at T. Gh. and with pottery of the E.B. Age.” Sir Flinders Petrie points out that these pebble marks are not comparable with any Egyptian marks. One can easily see in them partial resemblances to potters' marks of later date, and lamp decorations of a still later period; but until excavation has proceeded further, and Père Mallon has published definite information, the matter must be left in abeyance.

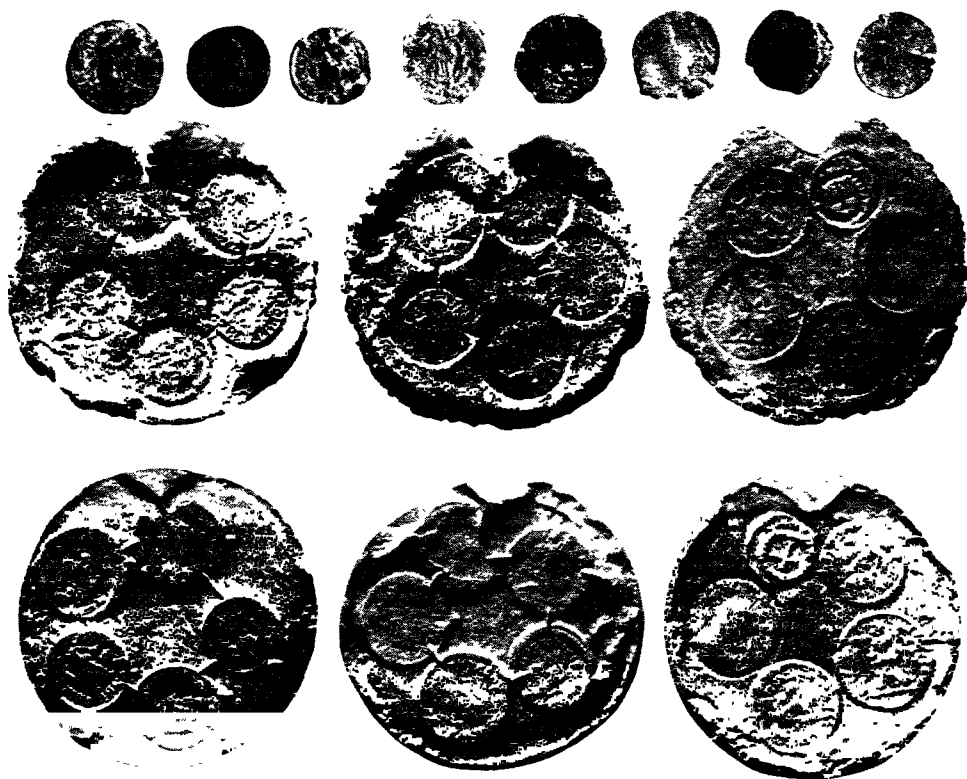
As to dating, the pottery and flints appear to be indecisive for the II Bronze Age; and Père Mallon bases chiefly on the appearance of bronze on the surface of the latest occupation. This implies the assumption that bronze does not appear in Palestine till the II Bronze Age. At Tell Ajjul (Gaza), however, as Sir Flinders Petrie has informed me, bronze appears at 2100 B.C. and copper at 3200 B.C. (V Dynasty). It is quite likely, therefore, that this town was destroyed at 2100–2000 B.C., as the pottery and other objects found would suggest. This would strengthen Père Mallon's identification of Teleilat Ghassul with Sodom.

J. GARROW DUNCAN.

[The conical pots and incised pottery are like those on the sites E and O in the Bethpelet Neolithic settlements. These belonged to an intrusive people, who came after the introduction of the triangular hoe, and before the hoe with parallel sides. They also introduced basalt work, and probably migrated from the Jordan valley. A long development of flint work succeeded this. The bronze objects on the surface at Ghassul might belong to a much later occupation. Until we have the levels of each of the varieties of pottery published, the connection with other sites is vague.—F. P.]

COIN MOULDS FOR EGYPTIAN FEUDAL CURRENCY.

IN *Ancient Egypt*, 1926, pp. 5-9, I described a new type of Egyptian bronze currency of the fifth century A.D., from examples in a hoard found by Mr. Brunton at Qau el Kebir: and I discussed its relation to other forms of currency further in the *Numismatic Chronicle*, 1926, pp. 43-92. This type consisted of cast pieces copied on a reduced scale from the Imperial coins which circulated in Egypt: the models were mainly drawn from issues of the fourth and fifth centuries, but included a few earlier examples, and I concluded that it represented a feudal currency.



Recently my attention was drawn to two moulds in the Ashmolean Museum, which obviously had been prepared for the production of pieces of this type, and with the permission of the Keeper of the Museum they are published here. They were obtained about 50 years ago at Akhmim by Mr. Greville Chester: they are thin disks of clay, one (I) with impressions on one side only, the other (II) with impressions on both sides. As will be seen from the illustrations, the impressions were grouped in sets of five, with connections by runlets; obverses and reverses appear indifferently side by side on the same disk, and there is no distinction of types; evidently the workman took any models that were at hand and put them on the clay anyhow. The upper disks are the moulds, the lower disks the impressions.

The general principle on which the moulds were made is the same as that shown in the moulds for casting copies of Constantinian coins, of which numerous examples have been found, especially in the Fa yûm ; but, as the latter were much larger, of approximately the same size as their originals, only one impression was made on each face of a disk. The moulds were fitted together in a roll with a clay envelope, with a cut along one side going down to the impressions, for the introduction of the molten metal ; but, in the later moulds, it was necessary also to make runlets from one impression to another, through which the metal could flow. These runlets seem to have been formed by cutting the clay, after the impressions had been made on it ; this only had to be done on one side of each mould, and so it will be seen that there are runlets on II (a), but not on II (b), the other face of the same disk. These runlets frequently went over the edge into the field of the coin, and the marks of them were reproduced on the casts : the results are obvious on some of the actual coins from the Qau el Kebir hoard which are shown on the plate. These marks puzzled me when I first examined the hoard, but they are clearly explained by the moulds.

Apart from questions of technique, the moulds are important in the evidence they give as to the district where these casts were produced. Though the find-spot of the moulds is not stated, they are not likely to have been brought from any great distance to Akhmîm for sale ; and so they confirm the suggestion I made that the pieces found at Qau el Kebir originated in the neighbourhood of that town. It is also interesting to note that the maker of the moulds did not confine his copies to contemporary coins : on II there appear an obverse of Theodosius and a reverse of the cross in wreath type which did not come into use till after the death of Arcadius ; this also is in accordance with the evidence of the Qau el Kebir hoard. Some of the impressions on the moulds are imperfect, and may be compared with the illegible and almost blank specimens from Qau el Kebir in the upper row on the plate.

J. G. MILNE.

[In University College is a group of eight pottery disks, stuck together by overheating. The moulds are empty, so they were being heated before casting ; this explains how the metal ran through such narrow passages. On the rouleau is a runnel for filling all the moulds at once. The end disks have moulds outside, but are broken. The types are partly effaced by heat, among them are VOT X MULT XX, and Victory dragging a captive. The disks are 1·9 to 2·0 inches across, each has six moulds, 0·38 to 0·45 diameter. Bought in Egypt.—F. P.]

A SYRIAN GOD AND AMEN-RA?

IN the volume *Bethpelet I*, on plate XII, there is given a scarab No. 171, of which the description is to be found on page 7 of the same volume, and is as follows :—

“ The best engraving of all is on 171, where the Syrian god, with pointed cap and long streamer, having horns in front, grasps the Egyptian royal uraeus with hood expanded and pierces it with a spear. This can only refer to the Syrian triumph over the Egyptians, at the close of the XVIIIth Dynasty, and is the only native memorial that has been found of that revolution.” This scarab is of particular interest, since the form of the god shown is certainly rare, and on that account its identification is a matter of importance.



Side by side with this scarab, however, there might be placed a plaque, which was obtained by the Rev. W. MacGregor at Zagazig in the year 1889. This plaque remained in the possession of Mr. MacGregor until recently, when it was sold to the Royal Museum at Brussels. The plaque is of glazed steatite.

M. Jean Capart, Keeper of the Brussels Museum, stated to the present writer that he does not know of any other similar document. He has also very kindly supplied the following opinion :—

“ It is perfectly clear that it exhibits two representations of Amen-Ra. With regard to the date of the object, I have no hesitation in placing it in the Bubastis epoch. The cartouche which is to be found on the side (edge) is that of Shishak II of the XXIIInd Dynasty.”*

* The publication, however, reads as Rameses II (Ed.)

This identification is interesting when it is remembered that the plaque was obtained at Zagazig (Bubastis). The text on the plaque is partly obliterated. The one side apparently reads, behind the crio-sphinx of Amen-Ra, "A *dy hetep seten* of Amen-Ra king of the gods Lord . . . living . . . eternally for ever." In front of the sphinx there seems to be "Amen Ra king of the gods Lord . . ." followed by some signs for which there appears to be no translation.

On the other face, behind the winged figure, the inscription, which is not very clear, probably reads: "The protection of life behind thee, as Ra."

The matter of great interest with regard to the plaque is contained in the remarkable similarity which exists between the winged figure and that shown on the scarab. If the uraeus here normally accompanies the figure of this god, it is not likely to represent the dominion of Egypt on the scarab. The Syrian winged figure of a god is referred by Cook (*Rel. Ane. Pal.* 116) to the god Set; this is confirmed by a Leyden stele bearing Set spearing a serpent (*Lanz. Diz. Mit.* ccclxxviii, 1). The scarab then may well represent the triumph of the Syrian god Set.

JOHN ROBERT TOWERS.



THE PEOPLES OF EGYPT.

BEFORE looking at the many mixtures of races which occurred in Egypt it is desirable to review the causes and the methods of such mixtures, so as to distinguish them in our historic view.

Races are brought together (*a*) for food supply ; (*b*) by taxation altering allegiance : the Goth came as a relief from Roman taxation, and the Arab was preferred to Byzantine taxing ; (*c*) for plunder of movables, or of land.

The movements are by (1) infiltration, either chronic absorbed, as the Flemings and Huguenots in England, or not absorbed, as Jews and the gypsies. Or else leading to conquest, as the 1st dynasty or Arabs in Egypt.

(2) The entry may be backed by a faction, for rule as the Normans in Ireland, or for displacement as the Saxons in Thanet.

(3) The movement may be direct war (*a*) for domination, absorbed as XVIIIth, or XXVIth dynasty or Greeks, in Egypt, or for rule as English in New Zealand ; (*b*) for plunder, as Egyptian campaigns ; (*c*) for slaves, as Egyptian, Assyrian, and Roman wars, absorbed as in Egypt, or subject as helots or negroes ; (*d*) for extermination, as down to our days in Tasmania.

A rich country will always tend to receive changes of population. In times of peace immigrants will push in to share in the benefits of the land, as the good land of England has drawn foreign people in every century. The result of prosperity is usually enervating, so that in war more active races are led to invade and seize the wealth that has been acquired, as in the Saxon and Norman invasions of England. We shall here consider the peoples who entered or influenced Egypt, rather than the changes of political ascendancy.

Egypt, as the most fertile and favourable land for primitive races, was necessarily bound to be in frequent relation with foreigners. By its suitability the civilisation in it was usually in advance of that in surrounding lands. The history of Egypt is, then, the most continuous and longest record that remains to serve as a standard scale for gauging and registering the history of other countries. Thus the foreign connections of Egypt are, at present, the most important sequence of history for tracing the career of man elsewhere.

The most remote view of man that we have was when the Nile ran a hundred feet above the present level, and deposited rolled Chellean flint tools in its gravels. Artefacts of each of the later periods are known, and at the close of the Palaeolithic Age there were deposited many mineralised human bones, of which fragments are preserved to us, broken and river-worn. These show a high type of man, and the form of the jaw is equivalent to others of the pyramid age.

The continuous development of civilisations has been traced in the Haifa caverns, from the Mousterian down to well-known times. Also in the Wady Ghazzeh, South Palestine, a continuous series of settlements has been examined by our School, from Mousterian types to the rise of copper, and associating flint work and pottery. These appear to link on to the Egyptian series, which is now carried back continuously to the Aurignacian.

The starting point of continuity of details is at present in the Tasian age in Egypt, the flint work of which belonged to the Solutrean style. In looking at Oriental sources, we must not expect to find the stages in the same condition as in Europe. The civilisation was older and more stable, and it was not interrupted by changes of climate. The Solutrean in the East seems to have progressed unbroken into the Neolithic stage, the types of form being almost identical,

while in Europe the immigrants were isolated and brutalised by the cold Magdalenian period, after which a fresh body from the East arrived in the Neolithic stage.

In conformity with this we find that the Solutro-Neolithic style of the Fayum settlements and Badarian stage was followed in Egypt by an infusion of people using the Magdalenian style, contemporary with others who had gone on developing the Neolithic style in the Amratian and Gerzean periods.

We can now begin to frame a definite course of history of the arts, with the Badarian period in Egypt. This preceded the Magdalenian style, which in Europe is, dated at the most moderate estimate, to 9500-6500 B.C. If this is the equivalent of the Amratian and Gerzean which contain Magdalenian works, the Badarian will date from before 9000 B.C. or thereabouts. It was certainly a long period, as in the middle of its deposits a layer of limestone chips was washed down and consolidated like rock, yet the styles of work before and after this interlude are identical. It is not likely that the Badarian age began later than 10,000 B.C.

The condition of mankind, then, in Egypt shows a mixture of three races. (1) The rude, thick-limbed people, who were doubtless pre-Badarian. (2) Heavy-faced but normal type, like the Sumerian. (3) Shapely active type like the Mediterranean. Which of these introduced the Badarian civilisation is in question: but from the skulls being most akin to the primitive Indian, and all later Egyptians gradually being more Mediterranean in type, it seems that the Badarian was certainly Asiatic.

This first definite migration into Egypt brought in pottery of the finest paste, shaped by hand with faultless regularity and thinness, a level of skill never attained later; this steadily degraded into ordinary thick ware. The civilisation must, therefore, have come in from a higher source, and ran down in Egypt. Stone vases were carved in basalt. Great quantities of stone beads covered with green glaze were made. They could work jasper and quartz crystal. Flint swallow-tail arrow heads were finely chipped. In ivory they carved figures, spoons, and combs. Linen was woven. Corn was cultivated and ground. All this civilisation came in from some higher centre in Asia about 10,000 B.C., and laid the foundation of Egyptian culture.

Immediately following the Badarian (sequence date 20-29) came the Amratian civilisation (s.d. 30-42). It is linked with the Badarian by the continuity of black-topped red pottery, the form of carinated bowls, the use of slate palettes and malachite eye-paint. Yet a great outburst of new types and new decoration shows undoubtedly a fresh people entering the land. The most obvious feature is the abundance of white line patterns on red bowls; these are all imitations of basket patterns, of which the Badarians do not show a trace. They imply an independent rise of pottery from the clay-lined basket, while the Badarian wrought clay as a pot-making material, pure and simple. The patterns are those still current in the highlands of Algeria, where also the use of haematite-faced pottery and white slip decoration is common. It is, then, to Libya that we must refer this new group of population.

The decoration of this white-lined pottery shows much of the civilisation. The interest was not only in men and animals, but also in plants, of which a dozen kinds can be distinguished. Ships with two cabins are figured, rowed with pointed oars. The idea of drawing a ground plan appears, that of a boat painted in an oval dish. The gold-standard weight was already in use, and also spread to Sumeria and India.

Human figures carved in ivory are not rare. The type is slender, with domed head, bare chin, and the pubic sheath of the Libyans. There was wide

projection of the ears, which indicates that they slept on the back, as Egyptians do now. Necklaces were worn, and anklets of bead work. Tatuings were frequent, but there is no indication of clothing for men, though sandals were used (s.d. 32). Long-toothed combs were to retain masses of hair, such as the wavy hair of the fighter on the earliest scene of a combat. The combs and hair-pins usually have an animal figure at the top. Wigs were sometimes worn over a shaven head.

The most characteristic object was the disc mace-head, which disappears in s.d. 42, when the pear form begins. The disc is almost always of syenite or other quartzose rock, the pear mace of limestone or alabaster. Tubular stone vases are of brown basalt or coloured limestone. Slate palettes used for grinding eye-paint are not oblong as before, but begin again with natural rhombs and continue in animal forms. Flint was skilfully worked, in thin forked lances and symmetric knives. The surfaces were scaled over in small flakes, not rippled, and the edges deeply serrated.

Copper was slightly used, probably in the native state. The chisel is a little square bar, 2 inches long, with sharp end; the needle is a stout wire with a notch to hook thread along. A bone harpoon was used for fishing. All this gives a picture of the North African civilisation which penetrated Egypt from the west, with new ideas. It is much more varied than the Badarian, artistic in feeling, and capable of fine work in hard stone. Some foreign trade is shown by emery from Smyrna and lazuli from Persia. There was public security, as wealth appears in the qualities of burial. A unified style existed all over Egypt, implying a widespread control, and the people may well have felt that they had mastered life, and all that was worth having.

On the east of the Nile valley there stood a different civilisation, the products of which occasionally came into Egypt all through the Amratian age, from s.d. 31. Suddenly at s.d. 40 much more of their ware entered, and at 42 was the decisive change to the Gerzean age, when the fighters with the pear mace crushed out the use of the disc mace. These people came from a rocky region, and were within touch of the Red Sea mountains for their supply of hard stone. They knew the aloe (s.d. 40); later, the ship was acquired, on the Nile (s.d. 45). The Red Sea mountains would be the most likely region for this culture.

The Gerzeans brought in a hard, buff pottery, always copied from stone vase forms. It was painted with red haematite, and the subjects show the changes in the civilisation. There is an abundance of shipping, bearing signs of the ports, and a larger amount of foreign products. Lazuli, emery, blende, garnet, amethyst, clear serpentine, turquoise, and gold were better known, while iron and silver first appear about s.d. 48. The first piece of imported glass came about s.d. 41. Linen was commoner, and stuffs were knitted.

Divination was brought in with the use of slips of reed, which were cast down to see their position, as Arabs do now. Also with little slate figures, probably used similarly. This divination by slips passed on into the use of four arrows (Ezek. 21, 21), the origin of four suites of cards, as Stewart Culin has shown. The use of games was brought in, such as game boards divided into squares, and playing pieces; marbles were commonly made of hard stone, and miniature skittles copied from a large form. A fresh system of weights was used, known later as the Babylonian or Daric.

In stone-working the vases of porphyry and other hard rocks were beautifully made, entirely by handwork. Flint flaking rose to a fine art of decoration; thin knives of large size were ground quite smooth, and then one face was flaked with very even ripples, more regularly worked than any known elsewhere. Copper

came more into use for daggers and adzes, though not yet for heavy tools. Spoons began to be made of ivory and silver. This civilisation broke up at s.d. 63, and all good workmanship was lost, under the pressure of Nubians and invaders from the Red Sea, both at Koptos and at Suez.

The Semainean Age (s.d. 63-78) which followed had little consistence; the products were mainly a rougher version of the preceding style. Interruption by various movements was frequent, and gradually the Red Sea invaders gained a hold over all the other peoples. It was a time of general convulsion, like the break-up of the Ramessides or of the Roman Empire.

From the Nubians of the south there came stone axes of porphyry, jade, and basalt (s.d. 63), the black incised pots with lid sunk in a ledge as in basketry, also the square-ended flint flakes which predominate in the Ist dynasty.

From the Red Sea there came in an Elamite influence, which seems to bear out the Punite tradition of the Egyptians. It appears as if Elamite traders had pushed down to Somaliland, and there founded a settlement at a strategic point, Ha-Fûn, a little peninsula such as the Punic trader loved, at Tyre and Motya. Thence they pushed up the Red Sea and brought Elamite ideas with them. The cardinal monument is the scene of fighting by sea and land, on the ivory handle of the Gebel el Arak knife. There two types of ships are figured, one Nilote, the other high-prowed like the black ship in the Hierakonpolis painting at s.d. 63. That dates the invasion, but even before that, at s.d. 46, there was a cylinder with mock signs upon it, showing that trade from Iraq had reached Egypt early in the Gerzean Age.

The Elamite carved the scene of conquest with the Divine Hero holding lions in true Mesopotamian style, he brought in the cylinder seal, the group of two serpo-pards as on the slate palettes, and the panelled wooden house imitated in architecture. A fresh standard of weight appeared, the qedet, which was the national unit in dynastic times. Lower Egypt was ruled by eastern people who were hunters; there was a woolly-headed negro people mixed up in the scenes. During this time only coarse brown pottery was made, except where some Syrian influence brought in a hard, pale ware with the wavy handle.

Abydos was the chief city of this age, where the kings of the Elamite stock were gradually growing in strength and ability. The south had been consolidating from Hierakonpolis, the old capital, down to Abydos, the later centre. At last, Mena carried his rule down stream to Lower Egypt, conquered the chief of the Fayum, and the Delta which was all fertile, without lakes in pre-Roman times.

Thus, down to the point at which written history begins, Egypt was under the rule of—

Tasians	10,000 B.C. (?)
Badarians	from Asia
Amratians	from Libya
Gerzeans	from Asia
Semaineans	from south, east, and Elam
Ist dynasty	Elamites from Punt united with Libyans.

There is no trace that Egypt had occupied, or dominated, any other land during these prehistoric ages.

Though these various ethnocracies ruled, each with typical products, yet there was usually a conquered people remaining distinct, in subjection but keeping up its own ways. From the Badarian down to Semainean period there are figures of women of steatopygous type, tatued, who seem to be of an earlier stock. In the Amratian and early Gerzean there are flint flakes of long, wavering, Magdalenian type, yet associated with the most perfect flaking. The mixture

of types in the figures at the rise of the dynasties shows (1) a plaited-beard type with curly hair, from south (?); (2) a pointed-nose type with pigtail, from east (?); (3) tilted-nose type of Fayum; (4) forward-beard type with sub-aquiline nose, western (?); (5) the dynastic race, Elamite, with forehead and nose in straight line, wide head and nose, small mouth. This last race brought forward hieroglyphic writing, and the beginning of the annual record. A wide and regulated bureaucracy, and full development of brick building, made this an entirely fresh basis for the later growths.

A fresh people yet again came in with the third dynasty, the king being of Sudany type, with a massive head, large aquiline nose, and thick lips. This mingled with Libyan stock, and in the next dynasty Khufu, the pyramid builder, shows some of the Sudany strain. Stone building was the passion of this race, bringing in graceful forms from wood and brick, and growing to the greatest scale that mankind has ever reached. Though Egypt had this ruling race, there is also met—even in upper classes—a thick-faced low type; there is also some sub-race who kept up using little seals with animal figures like those on the rocks in the back of Tunisia.

In the Vth dynasty the Egyptians began to expand towards Syria, probably up the east of the Dead Sea, because the west was too strongly fortified. The great defences of the frontier city of Gaza show how much the Syrian dreaded Egyptian power. The raids into Nubia in the VIth dynasty seem to have been only for slaves.

In the latter part of the VIth dynasty there began a flow of people from North Syria or Iraq, distinguished by wearing a badge in the form of a button hung round the neck. Such badges are found from Cilicia, Aleppo, Bismiya, and Susa. These people came down in force at the end of the VIth, and swept into Egypt where they formed the VIIth and VIIIth dynasties, ruling both Syria and Egypt during 215 years. Perhaps they were the Amorites, who are known to occupy North Syria about that time. The kings had apparently a bodyguard, with badges inscribed "the life of Horus triumphs." This was the first great political conquest by a settled people over Egypt.

The end of any conquering power, without overwhelming immigration, is gradually to be subdued to the old stock of a country. The Asiatic rule weakened, and two fresh peoples grafted themselves on Egypt. The Libyans came in as of old, and occupied Middle Egypt as the IXth and Xth dynasties for 285 years; they became much weakened, and were supplanted by the XIth dynasty of kindred stock. The characteristic tomb of the XIth dynasty is copied from the dwellings of south Tunisia, a great courtyard cut in the rock with chambers excavated around it. Meanwhile another movement from the south was more potent; the Galla race, now east of the Sudan, came down the Nile, adopted Egyptian culture, and occupied the north of Upper Egypt at Qau. They borrowed the spiral and fret pattern from northern lands, through the Syrian conquerors. The grand tombs in the rock which they cut in the Xth dynasty were of the Nubian type of temple, and adopted the N-S direction, instead of the Egyptian E-W axis. At last, through all the crowd of Syrian, Libyan, and Sudany settlers, the old Egyptian stock came up again. The decadent XIth dynasty employed a true fellah of stout Egyptian build, as vizier; this Amenemhat managed the country "over the whole of the south" during a dozen years, married the heiress of the Galla line, and called his son by the Galla name of Senusert. Such was the foundation of the XIIth dynasty.

Thus was established one of the most vigorous periods of civilisation during

two centuries. The revival of pyramid building links it with the great age of the IVth-VIth dynasties, fine art followed the earlier times, but with a more varied growth and a more scholastic treatment. The conquest of the south was the main expansion, which carried Egyptian power up to Dongola, while in the north there was free intercourse with Byblos, and an occupation at least as far as Samaria. The influence was very strong on the border of Palestine where Egyptians were in office, and their workmanship was well imitated.

This power began to fall into decay in a century; there were Syrian infiltrations going on, and after a long reign of 48 years they began to force their way into Egypt. The Hyksos horsemen came down through Syria, and poured into the Delta, though they did not advance to hold the capital, Bubastis, till 130 years later. Then the great king Apepa I stretched his suzerainty up to Gæbeleyn beyond Thebes. The north being thus split off, the south became also independent, centring at Edfu, close to the old southern capital of Hierakonpolis. Thus the new forces held the oldest capitals, Buto and Nekhen. The southern kingdom has left monuments of nineteen kings, much of the work quite equal to what was done elsewhere. The rulers of the middle kingdom, from Memphis to Thebes, were looked on as the legitimate line.

In the north the Hyksos quickly took up Egyptian civilisation. They patronised mathematics and medicine, rebuilt the temple of Bubastis with copper gates, and had viziers over both Syria and Egypt together. One such is known in the latter part of the rule, even when they were less powerful. Out of 38 kings stated to have reigned, the names of 32 have been found on their works, a much larger proportion than in the names of Egyptian kings then.

Nearly eight centuries passed by, the Hyksos power decayed, and the Berbers of the south became active. They seem to have entered on the old Edfu kingdom, and the leader against the Hyksos was a little, dark man, Sekenenra. His daughter, Nefertari, is painted quite black, although venerated as the great ancestress of the XVIIIth dynasty. The change of type was due to Nefertari marrying her half-brother, Aahmes, who was a son of the Libyan fair queen Aah-hetep. Libyan blood prevailed, and Amenhetep I is represented as fair. He married a second fair Aah-hetep, another wife of his was "the princess of the North," Hent-ta-mehi. By the energy of this family Egypt was recovered, thanks to the foreign mixture of Berber and Libyan.

The conquest of Syria by Tehutmes I, up to the Euphrates, and the spoliation of the land by Tehutmes III, brought a flood of Syrian influence into Egypt. This became the fashion, and increased until Tehutmes IV married a daughter of the king of Mitanni, and worshipped the Aten (J. E. A., 1931, p. 23), and Amenhetep III and IV did likewise. The Syrian strain and influence triumphed, and Syrian art in Egyptian hands produced the wild revolution of ideas at Amarna. Sons of Syrian princes were educated in Egypt.

The recoil came even in the time of Akhenaten. Nefertiti was adored at Thebes as the "guardian of all the gods," and her name was erased at Amarna (A. E., 1926, 63). When widowed she tried to get a son of the Hittite king to marry her, and so make an Egypto-Hittite dynasty. The Egyptians would have none of it, the mixed art perished; yet Syrianising prevailed, and the next dynasty was strongly influenced. The rise of the Rameses family is obscure to us, but probably it was from the great vizier Rames, who ruled under Amenhetep III and IV. A Rames appears with a brother Suti, named after Set or Sutekh. So the family was probably one of the mixtures resulting from the Syrianising policy of Tehutmes IV. Ramessu I followed, and called his son Sety. Ramessu

II called his children Neb-en-Kharu, Sety, Set-her-Khephshf, Bantantha, and Bent-baal : he is said to be "like Baal in his wrath," he adored Set among the gods, and Sutekh, and in the 34th year of his reign he married the daughter of the Hittite king.

Syria again prevailed when, after the XIXth dynasty had failed, it was a Syrian, Arisu, who took possession of Egypt, and he was ejected by Set-nekht, "the might of Set." Here Set and Sutekh, the enemies of the Egyptian gods, are the patrons of the dynasty.

The weakness of Egypt during the 66 years' reign of Ramessu II tempted the Libyans to settle in the western side of the land, and later to attack Merneptah. The next generation renewed the attack, "the Libyans were seated in Egypt, and took the cities of the western side from Memphis to Karbana" on the coast. When the alliance of Tunisian tribes came to attack Egypt, they were routed and made captive. Both of these wars imply a large mixture of Libyans with the western Delta. Six years later they again attacked Egypt, and Ramessu III carried the repulse westward into their own land.

After this, in the steady decay of Egypt during two centuries, we cannot doubt that the Libyan encroachments were continued. The royal activity was centred at Thebes, scarcely anything was done at Memphis, and the Delta probably lapsed to the foreigner, on the western side. In the XXIst dynasty, Thebes and Tanis on the eastern frontier were the only centres of government, and the west seems to have been abandoned to its fate. Memphis and Heliopolis are the only places of monuments.

On coming to the XXIInd dynasty, Egypt was dominated by a foreign general. A false reading of a genealogy has led to supposing this to have been a Libyan movement, but the name of Sheshenq is essentially eastern. Shushinek, "He of Susa," was a great divinity in Iraq and Persia, and one called after him must have come from the east. The capital of the dynasty at Bubastis was where the eastern road joins the Delta, and most of the monuments of the dynasty are on the eastern side. When we look to the west there is not a single trace of the first six kings of the dynasty, and only Sheshenq III has left a block at Kom el Hisn. In the Fayum there are only two remains of Usarken I. It is quite improbable, if the dynasty was western, that they should have ignored the west and concentrated in the east. This domination of the east resulted in letting the nomad Libyans occupy the west freely. The Ethiopian invasion was the end of this age.

When the next view of the country is reached, under Pankhy, the Ethiopian suzerain, we find Libyan chiefs advanced up to the middle of the Delta, at Mendes, Sebennytos, and Pasopd, while Tafnekht the Libyan held all the western side up to Memphis. From there he ruled up to Ehnasya and Eshmuneyn. All this political advance was pushed back by Pankhy, but probably without expelling the Libyan settlers.

The Ethiopians greatly revived the arts, but it is not likely that any large movement of population took place. The triumphant Libyans gained entire possession of the land by 664, after the transient plunder by the Ethiopians. Henceforth Egypt was Libyan in rule, as well as in the mass of settlers along the western side. This rule held all other settlers at bay, except that Psamtek had to satisfy his Greek mercenaries, and planted them on the two flanks of the country at Naukratis and Daphnae. Psamtek held the east farther at Gerar and Gaza as a frontier towards the Scythian horde already at Askelon.

In the next reign there was an attempt to regain the empire of the XVIIIth

dynasty, by Nekau, who had to yield it again in four years. The ousting of all the Greeks by Aohmes, only leaving them at Naukratis, and dismissing the Greek mercenaries, left the kingdom a prey to the Persians. Nationalism is a blind force.

The Persian age, 525-405 B.C., was solely a political rule, and did not bring in fresh population. But it favoured the Greeks as foreigners, and they steadily pushed in as traders. Their power increased, until the conquest by Alexander made the Macedonians supreme, and the most splendid age of the land was under Ptolemy Soter, and Philadelphus. Alexandria was founded for Greeks and Jews, and soon far outstripped all the former capitals of Egypt.

A prominent group were the Thracian soldiers, who were settled with other Greeks on the newly reclaimed lands of the Fayum, which made their civilisation dominate that region. A century later Thracians were a notable body, as well as Gauls from Galatia, Cretans, and South Anatolians. Altogether the Delta and Fayum were largely mixed with the nearer peoples of the Greek world, and the old stock of Libyans were in the background. The Delta, as being a marshy and less accessible district, held many fugitives and reprobates, as is seen in the IVth cent. romance of Theagenes and Chariclea. The sinking of the Delta since then, and formation of the lakes and great salt marshes, has made this region the home of run-away slaves at present. As Egypt was the richest land of the Greek world, so it attracted adventurers and speculators of all kinds, much as it has done in modern times. Greek became the current language of business in Egypt, and gradually ousted the Semitic from legal use. The progress of Christianity also rested on Greek, and the native Coptic was written with Greek characters.

Roman rule did not lead to any serious Latin colonisation, and Roman legions were of anything but Roman blood. Probably some mixture took place from the legions, but much less than was due to the influx of Greek trade and usury. The good order established by Augustus led to using up Egypt as much as possible by the corn levy and taxation. When general economic troubles began to tell in the middle of the second century, it was needful to compel owners of property to stay until all their capital was devoured by taxes. Then agriculture felt the burden, and the Bucolic war was the result. All this treatment deterred other people from pressing in.

The first step in the Arab world was the recruiting of Palmyrene archers for the Roman garrison of Koptos. The anarchy under Gallienus left Egypt open to invasion. Zenobia sent 70,000 Palmyrenes who ejected the Roman troops, and induced the kindred Blemmyes of Nubia to move down into Egypt. Aurelian drove out the Palmyrenes, and Probus pushed the Blemmyes back to the south.

For three centuries the Romans had insisted on inflating the currency, by reducing the silver alloy, until at last there was only plain copper to represent the tetradrachm of former days. The prices adjusted themselves exactly to the intrinsic value, nominally rising, and Diocletian tried to stabilise them by an edict of prices on plain copper values. But the trades unions having tasted of inflation insisted on going further in rivalry of nominal values, until the so-called drachma rose to about 200,000 times its real value. Then the collapse of such frivolous valuation came, and everything was bought by grains-weight of gold. Ever after that, the gold currency of the eastern empire went solely by weight, and was therefore not subject to fluctuation. (See *Ancient Egypt*, 1922, 105.)

In this miserable state of the country, Diocletian resorted to the same defensive policy as in Europe, and invited the desert Nobatae to occupy the

south, and keep out the Blemmyes, much as if we had asked the Senussi to keep back the Mahdi. On the eastern frontier similarly the Arabs were recruited as Equites Saraceni Thamudeni, and stationed at Scenae Veteranorum in the Wady Tumilat. These were but first steps in the barbarian advances. The bureaucracy and taxes became more insistent, more destructive. By 450 the Blemmyes came down into the Thebaid. In 500 the Persians advanced into the Delta, and Anastasius was reduced to asking the Arab Homeritae to attack them. A century later the Persians pressed on, and in 616 they occupied Egypt, mostly with Syrian and Arabian troops. Though after ten years the Romans returned, they soon after left finally, and the Islamic conquest of Egypt (640) was completed with the aid of many Egyptians who preferred Arab taxation to Roman extortion.

The Arab poll-tax on non-Muslims was 24s. a year, and on all land alike was a tax of 24s. an acre. The population of Egypt is stated at six or eight million men, beside women and children. This is much larger than any in modern times, and shows that the country was full, in spite of Roman taxes ; but the Delta was then probably double the present area, before the submersion of the coastal lakes. The increased pressure of taxes and persecutions caused revolt, and so made way for bringing in tribes to the south-east Delta. The Arab troops also were settled, and tribes came in from time to time. Thus the Arabising of the population was a gradual but constant process, which has continued down to the present time. By 832 there was a serious rebellion of the Delta Copts, started by turbulent Arabs ; their destruction was a turning point of much wider Arab migration.

The Libyans began to interfere in 869, desolating the region of Esneh. A large push was made in 919, occupying the Fayum and sacking Alexandria. Though this was repelled, the condition of Egypt was desperate. By 946 a westerner claimed the throne, and in 953 Moezz arose, who in 969 finally established the power of the Tunisian Fatimites. Henceforward the Libyan had his way with Egypt, as in old times, and the Shi'as triumphed over the Sunni for two centuries.

The Crusades made no change in the population, and Saladin the Kurd had only a thousand under him. But the future connection of Egypt was all with Syria and Asiatics. The majority of the Mamluks were Turks, and Oriental influence continued until it was sealed by the Turkish conquest in 1517. In the last century we can see a steady flow of Libyans into Egypt ; the Arabs at the pyramids are all Tunisians, and along the edge of the western desert there are squatters of scarcely settled habits, who prey on the more stable occupants. Large numbers of Italian workmen have come into the towns, and the Maltese find a congenial home in Egypt.

The last two thousand years saw a large occupation of Egypt by Greeks of all lands, a dominating change by the Arab settlement, a Libyan influx, and finally a Kurd and Turk penetration.

In all those changes, whenever Egypt has held power abroad, it has been due to the energy of a foreign family of rulers. The Ist dynasty an Elamite family ; IIIrd and IVth, Sudanis ; XIIth, a Galla family ; XVIIIth, Berber and Libyan ; XIXth, Syrian ; XXVth, Ethiopian ; XXVIth, Libyan, Ptolemies, Macedonian, Fatimites, Libyan ; Saladin a Kurd ; Mamluks, Turks ; Ibrahim Pasha, Albanian. Egypt, like China, needs a foreign dynasty for government, and thrives best under an alien family.

REVIEWS.

Joshua, Judges. By JOHN GARSTANG. 8vo. 423 pp., 73 pls., 19 maps. 1931. 20s. (Constable).

This is by far the most complete study of the settlement of the Israelites, and it makes a full use of recent discoveries. A first-hand examination has been made of every site, in its relation to the record of the two books named; this has been illustrated by over a hundred photographs, taken to explain the nature of each place. This is a great piece of work, which future excavations can only modify in small details. The broad result is the close agreement of the historic accounts with the conditions of the sites and the country.

For reference, the geographical text of Joshua and Judges is here quoted in full, marking the separation into different sources as conceived by critics. Such distinctions seem rather arbitrary, as the name Yahveh occurs as freely in the E as in the J sections. The geography and conditions of the land are carefully described, with the natural routes and connections. Following this, the whole narrative of the conquest is reviewed, with every detail of locality and position compared. A military study such as this was much needed, for testing the contemporary origin of the account, which appears to conform readily to the physical features.

The tribal possessions are then reviewed, and the author knows the Amarna letters too well for him to confuse the advance of the Khabiru—guard regiments of the Hittites—from Armenia southward, with the entirely different invasion of Hebrews from the east. The history of the tribes in Judges is then discussed, and their historical relation to the ancient sites. Lastly the account of each site in full is a valuable store of details of the names and modern state.

While this geographical work is of great value, it seems a pity to have mixed it with a special view of the much debated historical relation with Egypt. Dr. Garstang simply adopts the results of Prof. Peet and Dr. Jacks without reserve, and states the date of the invasion by Israel as 1407 B.C. But it is needful to balance the evidence for this against that of other proposals.

The grounds for the *early dating* here are as follows :—

(1) The fall of Jericho is stated to be about 1420 B.C.; but according to Père Vincent, two centuries later by the types of the pottery. Until we have drawings of test forms to compare with others found in tombs with Egyptian kings' scarabs, we cannot tell the value of this as a discrimination of centuries.

(2) Shamgar Ben Anath (Jud. iii., 31) is taken to be the same person as a Benanath who is stated to have married a daughter of Rameses II. This has two questionable links. A "royal son of Rameses" is often met with for centuries after that king, as meaning a descendant; so a "daughter of Rameses" may equally be of some later generation of the royal blood. Also a son of the popular venereal goddess Anaitis would not be a rare name.

(3) A general fitting together of political changes in Egypt and Palestine is relied on. Yet both Egyptian power and weakness are equated with Rest periods of the land, and oppression was bad after Egypt disappeared. There seems no firm evidence in such indefinite equations.

(4) The vague associations of Israel in the defeat by Merneptah can hardly disprove the connection of that defeat with the first advance on the south border ; this was in full force, as it was popular and strongly advocated by Joshua and Caleb. (Num. xiv. 45.)

(5) The application of the term "hornet" to the Egyptian devastation would be equally applicable to Thothmes III as to Rameses III. None of the cumulative statements of long periods are free of suspicion as being due to later misunderstanding by compilers.

On the other hand in favour of a *late date*, about 1180 B.C. for the Exodus, there appears the following :—

(A) Sety I went through the land in 1316, across Jordan, and up to the high ridge at Hebron (Beth-shur) and on to Pella ; but there is no trace of this Egyptian presence in the book of Judges.

(B) Rameses II, Merneptah, and Rameses III all went through the land conquering, between 1295 to 1187 ; yet there is no trace of these Egyptians known to the Hebrews.

(C) The four priestly genealogies, from the Exodus to David, were of like length, 10 or 11 generations. By the usual eldest son succession (as with the kings) these 9 or 10 stages would occupy 195 or 215 years, thus placing the Exodus at 1180 or 1200 B.C. It is unlikely that half the generations should be omitted in all the four series.

(D) No judge is ever said to rule over more than one-third of the land, north, east, or west. These divisions total up as periods of 118, 122, and 121 years ; there is no reason why they should thus agree if they were successive.

(E) If the entry were in 1407 the Exodus would have been in 1447, or at the beginning of the reign of Amenhetep II, who went in force up to the Kishon ; so this is an unlikely time for exit of a tribe from Egypt.

There is enough weight on each side to prevent dogmatism ; but from the Egyptian point of view the later date is far to be preferred.

All students will thank the energy of Dr. Garstang, and the aid of Sir Charles Marston, in the production of such a valuable key to the narrative of the two books which tell us most about Palestine.

The Historical Flood. By Lt.-Com. VICTOR TRUMPER. 8vo. 26 pp. 9d. 1930. (Bangalore, 263 Cavalry Road.)

This pamphlet raises many questions about the bearings of the account of the Flood. That there was locally a flood in Babylonia, which left a thick deposit, is not to be questioned. The extent of it is the difficulty. That it was universal is contradicted by the continuity of species of all animals, not only of those which man would be able to preserve, and also by the absence of any physical traces in other lands. The Biblical account is a fusion of two versions, and in the earlier there is no mention of the mass of the great ocean being broken up, only rainfall is named, which is within the natural order, and does not imply any vast submersion of land. The various subjects here referred to a deluge—erratic blocks, groups of animal bodies, silt deposits, etc.—have no evidence of being all contemporary ; moreover, the mammoths are found standing, as if bogged, not as if swept away by inundation. That the flood extended beyond Iraq seems beyond possibility, however far the knowledge of it may have spread into the mythology of other lands.

JOURNALS.




Zeitschrift für Ägyptische Sprache. Vol. LXIII. Part 2. 1928.

SPIEGELBERG, W.—*Ein Gerichtsprotokoll aus der Zeit Thutmosis IV.*

The fragments of Munich Papyrus 809—Pap. Mook—have now been put together; a photograph is given. The contents concern the trial of one Meryre for payments due to the goddess Hathor of Aphroditopolis (Gebeley). The accused was sentenced to the customary hundred strokes. This papyrus definitely dates the tomb of Vizier Hapu (Gardiner and Weigall, *Topographical Catalogue*, No. 66) to the reign of Thothmes IV.

EBBELL, B.—*Die aegyptischen Krankheitsnamen.*

More Egyptian illnesses are identified as follows:—

- I7.  = Rheumatism.
- I8.  = Scorpion sting or snake bite.
- I9.  = Scurvy (?).

This affliction is attended by bleeding, affects all parts of the body, including the teeth, and in all probability was scurvy.

20.  = *Scrophuloderma*.

A difficult passage in the Ebers Papyrus is explained as a diagnosis of scrophuloderma. For this illness Egyptian doctors could not guarantee a cure, as is evident from the formula, "This is an illness against which I will fight," since for certain cures the phrase was, "An illness that I will treat," and for hopeless cases, "Do nothing to it."

V. BISSING, FR. W.—*Eine ägyptische Triade in Museum von Cagliari.*

After writing this paper the author found that Schiaparelli had published the tablet in *Notizie dei scavi*, 1919.

SCHARFF, ALEXANDER.—*Eine Kalksteingruppe zweier an einen Pfahl gebundener Männer.*

The writer can offer no explanation of this limestone group, which was acquired by the Berlin Museum in two portions at different times. It consists of two men bound to a post.

ROEDER, GUNTER.—*Die Kapellen zweier nubischer Fürsten in Debod und Dakke.*

The chapel of Ergamenes at Dakka is compared with that of Azekhraman at Debod, and the conclusion reached is that the Debod temple is earlier in date than the Dakka temple, that is, that Azekhraman preceded Ergamenes in date. In his preliminary list of Meroitic Kings (*J.E.A.*, IX, 1923, pp. 34-77), Reisner placed Ergamenes before Azekhraman, though he found no evidence for this order at Begarawiyah, and relied entirely on the order suggested by the evidence at Debod and Dakka.

CALICE, F.—*Zur Entwicklung des U-Lautes im Aegyptischen und Koptischen.*

Further instances are given of N.K. *u*=Coptic **ⲙ**, **Ⲏ**. (See *Zeitschrift* 62, p. 64=*A.E.* 1929, 2, p. 56, for Albright's latest work on this subject.)

CALICE, F.—*Die Entstehung der koptischen Eigenschaftsverben.*

The writer finds the clue to the origin of the Coptic adjective-verbs of the form **Ⲣⲁⲁ**=in a sentence in Sall. Pap. 10, 6, which begins with *nā nfr.* In the hieroglyphic text of the poem (Karnak 68) the first word is given as *in iw.*

TILL, WALTER.—*Achmîmîsches.*

The following points are dealt with: (1) **ⲉⲣⲑⲉ**; (2) the uncontracted *status nominalis*; (3) mixed forms in the *status pronominalis*; (4) the original vocalisation of the 2-*lit.* infinitives.

MISCELLANEA.

RANKE, H.—*Die Lesung von* **ⲙⲓⲁⲩ** "*Haus.*"

The variant **ⲙⲓⲁⲩ** of the O.K. man's name **ⲙⲓⲁⲩ** suggests that *w* is the second consonant in the word **ⲙⲓⲁⲩ** house.

The remaining contributions to this section are all by Spiegelberg, and are as follows:—

Zu Pap. Westcar ⁵/₂₄=⁶/₇. By reading *snty*, image, instead of *śnty*, foundation, ground-plan, in the girl's reply to Seneferu's offer to replace the lost trinket, there is no need to assume a proverbial phrase as has been done hitherto, since a literal meaning results, viz., "I want my possession in its own likeness," *i.e.*, the actual thing and not a substitute.

Zu dem Titel **ⲕⲱⲧⲟⲩ** *o.ä. der Spätzeit.* As this title has been found as a synonym of *iny* 'ṣ doorkeeper, it must now be translated in this way.

Die Datierung des Totenbuches des Priesters En-pehef-nachte. In *Zeitschrift* 63, p. 37 ff. (= *A.E.*, 1929, 3, p. 86), von Bissing dated this funerary papyrus to the XVIIIth dynasty, but it must be later, probably XXIst dynasty. The coffin of the owner of the papyrus is in the Brit. Mus. (No. 29591), and his ushabti box is mentioned in Hay MS. 29844A in the same Collection.

'wn.t (**ⲙⲓⲁⲩ**) = Pathyris (Gebeleyn). This town is named in the titulary of Pā-hry (*Urk.* IV, 115). Its identification with Gebeleyn yields a third name for this town.

Zu 'ṣs **ⲟⲩⲉ** "*kahl.*" The queries after the translations of 'ṣs and *is* on pp. 20 and 33 of the Berlin Dictionary, Vol. 1, may now be removed, and Coptic **ⲟⲩⲉ** bald, may be regarded as a derivative.

ⲉⲣⲑⲉ (A) < *hrdj.t* "*Furcht.*" Sir Herbert Thompson translated this word as fear in two passages in the Gospel of St. John. The Egyptian form of the word is to be found in its N.E. form in two passages in the Harris Papyrus.

Berichtigung zu **ⲙⲓⲁⲩ** **ⲉ** (A) "*er ist es.*" **ⲙⲓⲁⲩ** **ⲡⲉ** has now been found to be the correct reading of this expression in the Gospel of St. John ix., 37, so that Spiegelberg's explanation of the erroneous reading given in *Zeitschrift* 62, p. 48 (= *A.E.* 1929, 2, p. 55) is naught.

Zeitschrift für Ägyptische Sprach, LXIV. Part 1. 1929.




SETHE, KURT.—*Die beiden alten Lieder von der Trinkstätte in den Darstellungen des Lukserfestzuges.*

A translation of, and commentary on, two ancient songs which are quite foreign to the rest of the N.K. inscriptions that accompany the scenes of festival processions on the side walls of the Great Colonnade at Luxor.

SETHE, KURT.—*Das Papyruszepter der ägyptischen Göttinnen und seine Entstehung.*

The custom of giving certain goddesses a papyrus sceptre as an attribute is relatively late and was gradually evolved. It arose out of the O.K. custom of offering them a real papyrus flower that was specially plucked for this purpose in the Delta.

SETHE, KURT.—*Das Wort im "Seite" und der Ursprung der neu ägyptischen Präposition irm(w) "mit."*

The writer here corrects a somewhat forced explanation given in a former article (*Zeitschrift* 56, p. 44 ff.) of the name of the  = people as written in the time of Amenhetep III. He now shows that the last sign stands for *im*, an old synonym of *gs*, which soon became obsolete. This word, he thinks, may further explain the puzzling N.E. preposition   e "with."

BORCHARDT, L.—*Bilder des "Zerbrechens der Krüge."*

The custom discussed in this article is that of throwing down pitchers after the funeral meal, and is distinct from Sethe's "breaking of pots" (see *Zeitschrift* 63, p. 101, 1928=A.E. 1929, iii, p. 89). The vessels may have been broken to prevent their desecration by further use, or in fear of the spirit of the deceased who was believed to have taken part in the feast.

WOLF, WALTHER.—*Der Berliner Ptah-Hymnus.*



This is a detailed study of Columns 2-12 of Berlin Papyrus 3048, which consist of a hymn to Ptah. The papyrus dates to the XXIIInd dynasty, but the hymn probably goes back to the early O.K.



NEUGEBAUER, OTTO.—*Zur ägyptischen Bruchrechnung.*



The mathematical leather roll in the British Museum (published in *J.E.A.* 13 p. 232 f.) is shown to explain how the rules of the Egyptian "multiplication table of fractions" which underlie the "2/n scheme" were obtained.


EBBELL, B.—*Die ägyptischen Drogennamen.*


The following suggestions are made in identifying Egyptian drugs:—

1.   = Ladanum. This probability is made almost certain by the use of the medicament as a hair tonic.

2.   = sea shells. This was used in ointments for burns, and ointments containing lime are still a popular remedy for burns.

3.   = urina pueri impubis. If this identification is correct, we have a further example of a Greek remedy derived from an Egyptian.



4.  = *Alkanna tinctoria*, Tausch.

5.  = *Moringa aptera*, Gaertn. and not, as Loret thought (*Rec. de Trav.* XV, III-II6), *Ceratonia Siliqua* L.

GUSTAVS, ARNOLD.—*Subaräische Namen in einer ägyptischen Liste syrischer Sklaven und ein subaräischer (?) Hyksos-Name.*

The list under discussion was published by Steindorff in *Zeitschrift* 38 (1900), p. 15 ff. It is now shown to contain several names of Subaryan derivation (Assyrian or N. Mesopotamian). The question arises: if the Hyksos are proved to have been Subaryans, what has happened to their Subaryan names? One Hyksos name at least, *Smkn*, seems to be Subaryan in that it probably contains the name of the Subaryan god *Simiḳe*. But many Hyksos names are undoubtedly Semitic. Two questions present themselves, which cannot be answered in the present state of our knowledge: (1) Must we regard the *mariannu*, who formed the warrior nobility of the Subaryans, as the Hyksos nobility? (2) Was the mixture of Subaryans and Semites typical of the whole Hyksos race as it was of the *mariannu*?

EDGERTON, WILLIAM F.—*A Clause in the Marriage Settlements.*

The phrase  A. which occurs in marriage settlements is shown to mean here "love another than A." The "correct interpretation of the preposition  in this and some related idioms tends to illuminate the attitude of Egyptians in the demotic period towards polygamy. . . . No Egyptian marriage settlement directly suggests the existence of polygamy and concubinage."

SETHE, KURT.—*Zur Erklärung der koptischen Nominalverben der Eigenschaftswörter.*

Sethe cannot accept Calice's explanation of adjective-verbs with a suffix pronoun as subject (see *Zeitschrift* 63, p. 143); this form was explained in his *Nominalsatz* § 37.

SETHE, KURT.—*Bemerkungen zu W. Till's Achmimisch-koptischer Grammatik.*

Sethe reviewed Till's Grammar in *Deutsch. Lit. Ztg.* 1928, p. 1800 ff.; in this article he discusses several points in greater detail than was suitable there.

The following articles are by W. Spiegelberg:—

Der Ausdruck s³ 'w.t=f ('j.t=f).

This expression is to be translated by "One whose coming is awaited."

Eine Darstellung des Gottes Osiris Anezti.

On the obelisk-like termination of the pillar behind the head of a statue of Isis in the Munich Glyptothek (Statue No. 29)—the head does not belong to the statue—there is a representation of a man with the attributes of Osiris *ndty*. There was a temple of this god at Behbêt, the residence city of Nectanebês. Spiegelberg would, therefore, date the head to the time of this Pharaoh, *i.e.*, mid-IVth century B.C.

Der Grab eines Grossen und seines Zwerges aus der Zeit des Nectanebês.

The inscriptions on the two granite sarcophagi found by Quibell at Saqqara (*Excavations at Saqqara*, Vol. VI, 1923, p. 13) are dealt with in this article. Sarcophagus 29306 is that of a great dignitary of the reign of Nectanebês, whilst

the inscriptions on the small sarcophagus (29307), now published for the first time, show that it contained the great man's dwarf, who wanted to be near his lord in death.

Die Namen Σαμῶς und Θαμοῦς, Ταμῶς.

A bilingual papyrus in the University of Michigan (Inv. 3199) gives the demotic form of the Greek name Σαμῶς. The Egyptian name proves to be a theophorous one, T³ y-n-'m=w, meaning (God N) has chased it (the enemy) away. Σαμῶς is another form of the name Σαμᾶς, which was first known from "The Dream of Nectanebos." Θαμοῦς, Θαμῶς, Τιμῶς seem to be other forms of the same name.

Die Schlusszeilen der Erzählung vom verwunschenen Prinzen.

A new rendering is offered of the last lines of the *Tale of the Enchanted Prince*, which gives a very different version from the usually accepted one. It is based on a new reading of line 9, which Spiegelberg takes to mean that the Prince ran away from the dog in terror, when the latter addressed him in a human voice.

Der Vezier Harsiése zur Zeit des Nektanebés.


Several viziers of this name have been known in the Late Period, but hitherto none have been dated. A vizier of this name is now dated to the time of Nektanebés by the inscriptions on a fragment of black basalt in the Cairo Museum.

MISCELLANEA.

Zu Papyrus Westcar 8/17.—Erman's translation of this line is incorrect, being based on a mis-translation of *wt šps. t*, which is a term for human beings, not sacred beasts. The magician protests against decapitating and restoring the head of a human being, whereupon a goose is brought. In a postscript Spiegelberg acknowledges that he was forestalled by Sottas and Maspero in the correct translation.

Noch einmal Papyrus Westcar 5/24=6/7.—Nor was Spiegelberg first in the field with his translation of this passage in the Westcar Papyrus (*Zeitschrift* 63, p. 150); he admits the superiority of Peet's translation, "I prefer my own thing to its like" (*J.E.A.* XII, p. 320).

SCHARFF, A.—*Eine vorgeschichtliche Topfzeichnung.*—In the *Jahrbuch für prähist. und ethnograph. Kunst*, 1927, p. 29, H. Kühn has figured a scratching on a prehistoric pot of a quadruped with the sun's disk on its forehead, and has used this drawing in his comparison of Egyptian drawings with rock drawings in the Sahara-Atlas district. (The drawing is misquoted in the *Jahrbuch*; it is really in *El Amrah and Abydos*, Pl. XVII, 19). Scharff protests against classing the rock picture of the ram with the sun's disk as palaeolithic, merely so that it may be considered as the forerunner of the Egyptian ram of Amen.


KEES, HERMANN.—*Die Schreibung*  *für Vater.*—The *f* is not to be considered as an organic part of the word, but rather as having crept in, owing to the custom of writing "his father" in documents and formulae.

KEES, HERMANN.—*Zu Königsnamen im grossen Namen.*—The presence of a king's name in the "big name" of a private person does not necessarily mean that that person was born in that king's reign, since the name may have been taken in later life, witness a certain K³ (Cairo 43371). This official's "beautiful name" was Pepy-nefer Ramery nefer, but he grew up in the reign of Teti, and did not come to Court until Pepy's reign.

The remaining articles are by Spiegelberg :—

ϸω “*Binse, Matte.*”—This word is now shown to have two meanings, the material and the finished product, reed and mat.

’mj.t “*Farbenpaste.*”—The inscriptions on the stela of an artist in the Louvre (C 14) [see *A.E.* 1925, Part 2, p. 33 *f.*] contains an obscure passage in which the artist claims knowledge of making a product which resists fire and water. If the difficult words be translated as paste for inlay, we have a good description of the process used at Medum.

Zur Verwaltung Libyens im Neuen Reich.—An alabaster canopic jar in the Egyptian Collection of the Munich Museum antiker Kleinkunst is remarkable for the titles of its owner Huye. He was head of the bowmen, commander of the foreign lands in Libya, . This Huye was presumably identical with the owner of the stela from Abydos in the Berlin Museum (No. 7292).

L. B. E.

THE QUARTERLY OF THE DEPARTMENT OF ANTIQUITIES IN PALESTINE, I.i.

This series of reports is issued at 18s. 6*d.* annually. This number consists of 51 pp., 31 pls. It is of the same style as the British Museum quarterly, issued at 8s. annually, 40 pp., 20 pls. (Milford.)

Church of the Holy Sepulchre.—A slab of scroll work with men and birds is dated between 1150 and 1180. On the reverse is geometrical carving between 978 and 1090 ; both of excellent work.

Cemetery at Karm al-Shaikh, Jerusalem.—On clearing ground for the new museum, 130 feet north of the north-east corner of the city, a cemetery of about 70 graves was found, dated by coins between A.D. 30 and 580. Plans and 14 plates show the results ; an essential record, but not adding to our knowledge of that age.

A hoard of Phœnician coins.—An important group of the sea-pegasus rider, and owl with flail, type, found at Haifa 1¼ mile S.W. of the station, in Tell Hawwam ; 14 are of the earlier thick type with copper alloy, on the beqa unit, 204 grs. ; 95 are of fine silver on the Attic unit or Stater. Probable date between 310 and 280 B.C. Obtaining so many in fine condition, they give an excellent datum for the weight, and having been weighed before and after cleaning, the original weight of each can be fixed. The rust being of 108 silver to 35 chlorine, $\frac{3}{4}$ of the chloride removed will be silver, and on deducting $\frac{1}{4}$ of the difference from the uncleaned weight the original weight is found. On taking out the weights of each year of issue separately, there does not seem to have been any shift of the standard, or change in its accuracy.

		mean		mean	
		gms.	diff.	grains.	diff.
years	2, 3, 4	8.88	·03 =	137.02	·4
	24	8.87	6	136.86	·9
	25, 26	8.83	4	136.25	·6
	27	8.86	4	136.72	·6
	28	8.84	5	136.40	·8
	29	8.86	4	136.70	·6
	30, 33	8.85	5	136.56	·8

The mean of all is $8.855 \pm .005 = 136.65 \pm .07$ grains. The Egyptian Stater weights have a double standard of 134 and 136, so this is high in the heavier standard, but not much above the average of the Attic trade weights.

Mediaeval 'Ajlun.—This is a study of the defence of the east of Jordan against the Crusaders. Sections and plans of the different floors of the castle, with twelve views, are given.

A Fatimite coin-die.—This is a double die for both faces, like a peg cut in two. It is of El 'Aziz, 982 A.D., much like his large two dinar coin weight (*Glass stamps*, 291). From differences of lettering it is concluded to be a forger's die, like those used later by the Crusaders.

Loop pattern decorating lead sarcophagi.—These were found east of Ascalon. In a chamber were two sarcophagi opened, and one intact. The cast decoration on the sides of vine and loop pattern are useful as being dated to Constantine by a coin. The loops are like forms of bread used at church festivals, so the ornament represents bread and wine. In the intact sarcophagus were some goldfoil loops beside a necklet and other pieces.

Satura Epigraphica Arabica I.—Inscriptions of Beybars 1273 Nablus, two of 1295 Tiberias, 1317 'Araq al Manshiyyeh, with photographs.

Mediaeval Arabic description of the Haram of Jerusalem.—This is by Al-'Umari, quoting from Tajad-den, circ. 1350 A.D., valuable for the history of the Dome of the Rock, often called the Mosque of Omar.

The papers are only signed by initials; it would be desirable to give the writers' names in full, as is usual in scientific reports.

KEMI III.—VARILLE, A.—*La stèle Egyptienne No. 1175 de Toulouse.*—This bears a figure of the travel boat of Osiris bearing the shrine, named *neshemt*. The *shm* is written *sh* by abbreviation of the *shm* sign. The boat is adored by a woman Mery Ra and a scribe Mes, the latter having united with the fan-bearer Sah-nefer to bear the bark. Mery Ra is called the *hebs* or veiled one of Sah-nefer, and she takes the place in adoration where Sah-nefer would be expected. Is it possible *hebs* may be here the *widow*, who acts for the deceased Sah-nefer?

JOURNAL OF SOCIETY OF ORIENTAL RESEARCH, 1930, Nov.—KEVIN, R. O.—*Wisdom of Amenemapt and . . . Book of Proverbs.*—This is a useful summary of the various views regarding the date of Amen-em-apt and the relation to the Proverbs. As the portion of the Proverbs in question is dated by Oesterly to the VIIth century B.C., and as Lange brings down the date of the language of Amenemapt to Perso-Greek times, the door is open for considering whether the Egyptian was not compiling from the Jew. Kevin, therefore, goes through many passages which he claims as pointing to a Hebrew original. This is in accord with the structure being more continuous in the Hebrew than in the Egyptian, and with the powerful theologic ethics of Amenemapt which are unique in any Egyptian writing. In short, structure and character agree with a Hebrew original. The paper should be read by any one judging of the subject.

1931, Jan.—Apr.—MERCER, S. A. B.—*An Expedition to Abyssinia.*—Dr. Mercer has spent over two months in Abyssinia, examining and photographing Ethiopic MSS. of the Bible. He had every facility given, and collected all that was readily accessible. The earliest is not before the XVth century, but he

believes that older MSS. may yet be found in private hands. His special purpose was a critical edition of Ecclesiastes, which is now ready.

DOUGHERTY, R. P.—*North Arabia and the Ancient Sealand*.—This is a plea that the sealand refers to the low desert of North Arabia, which is the bed of an old sea, and very salt.

BULLETIN OF THE ROYAL ONTARIO MUSEUM, 1931, May.—A large scarab of was bought in London, 1910. The cutting looks good and careful, the back slate has the girth line beaded; the axial division is a double ridge, known in XXV. So there is nothing dubious, though the Necho forgery makes one cautious. After the royal titles it runs: "He has slaughtered his enemies, south and north. In every foreign land the chiefs of vanquished enemies to him—the fallen he slew—came themselves as prisoners that each among them might destroy his companion, in order that he might make glorious him who, in making him great, loved him." The translation is by Dr. Mercer.

BULLETIN, MUSEUM OF FINE ARTS, *Boston*, 1931, August. WHEELER, N. F.—*Expedition in the Sudan, 1930-1*.—A stele from Abydos records the expedition in year XIX of Senusert III; now an inscription of that year has been found on a quay at Uronarti. It describes the difficulties. "The king proceeded in going north from overthrowing of miserable Kush. One had to find navigable water for getting past Yashemuk and hauling the boats, as the season demanded, every shoal likewise. As for the shoal of . . . it was bad; it was far from easy to get through by hauling the boats over it, on account of the time of year." By the middle of March the king was nearly trapped by the falling Nile.

The fortress of Shalfak at Sarras has been cleared. It is built of mud, brick and timber. There are 83 rooms in seven blocks. Sealings found were of the fortress Waaf-Khasut, assumed to be the name of this fort; but would they not rather come from a neighbouring fort and be discarded here? We welcome the activities of our old friend, Lt. Com. Noel Wheeler.

JOURNAL OF THE PALESTINE ORIENTAL SOCIETY. X. 2-3.—KJAER, H.—*The Excavation of Shilo*.—This work in 1926-9 opened a house of about 1100 B.C. with water jars, and cleared the foundations of a church of the time of Anastasius. No new class of objects was found.

ORIENTAL INSTITUTE, CHICAGO. Medinet Habu., 1931.—NELSON, H. H.—*Epigraphic survey*.—This describes work subsequent to the volume of copies, dealing with a second Libyan campaign, year XI, and the Hittite and Sea People War. From the 31 small scale copies here it is clear that there will be many interesting matters to study when the large publication appears.

HÖLSCHER, U.—*Architectural Survey*.—This describes clearing the remains of the Coptic town, and gives a small plan of the whole of the earlier buildings within the temenos wall. Restored views are given of the successive stages of the small temple of Hatshepsut.

NOTES AND NEWS.

WE greatly regret to hear of the death of Mr. Cecil Firth, who was so well known by his excavation of the great architecture of Zeser at Saqqarah. His career in Egypt began with our School, but he quickly transferred to Dr. Reisner's work. After some years on the Nubian Archaeological Survey he was appointed to the excavation at the Step Pyramid. Last July, on his return for holiday, the change from an Egyptian summer to the north produced pneumonia, which increased by the journey and left him incapable of recovery in England. Our sincerest sympathy is due to our old friend Mrs. Firth, who, as Miss Hansard, greatly assisted our copying work in Egypt. How far the excavations at Saqqarah will be continued is uncertain; a pause now might give time for M. Lauer to complete the large amount of publication which is due.

The work of the British School of Egyptian Archaeology will be resumed at Tell el Ajjul, with an increased staff of seventeen workers, mostly volunteers. The principal object will be to discover the position of the temples and palace. The more important part of the cemetery has also to be sought for, the great gateway cleared, and other questions answered.

The present financial troubles make it very difficult to continue scientific work, and we have to rely on using up the small capital of the Society. We hope that all who can will help to keep work going, in which so many English students are engaged.

Señor Luis Siret has capped the article on Falcon-face, in *Ancient Egypt* 1929, 47, by kindly obtaining and sending here a charming little puppet made in Almeria, in which the head is formed by the *Garbanzo* falcon-face hommos bean. The eyes are touched with black, and a spangle of glass inserted. It is an interesting corroboration to see this idea of the face prevailing still in Spain. Our best thanks for this touching evidence of continuity.

Published in November. "Seventy years in Archaeology," by Flinders Petrie: personal reminiscences. 269 pp. 26 plates. 18s. (Sampson, Low).

WAS AKHENATEN A MONOTHEIST BEFORE HIS ACCESSION ?

THE fourth year of the reign of Akhenaten is usually regarded as the time when his religious policy came into being. This may be regarded as doubtful, as the evidence which follows seems to show that the religious outlook of Akhenaten was known, even outside Egypt, at the moment of his accession.

The letters which Dushratta, king of Mitanni, wrote to Egypt are an interesting commentary on the events of that period.

Among the Tell-el-Amarna letters there are five letters which were sent by the king of Mitanni (viz., Dushratta) to Amenophis III (Nimmuria).

They are numbered by Winckler (*Thontafeln von Tel-el-Amarna*, 1896) Nos. 16, 17, 18, 19, 20, and by Sir Flinders Petrie (*Syria and Egypt*, 1898) Nos. 4, 5, 6, 7, 8. In all these letters definite mention of the gods is made by Dushratta. So emphatic do these references appear to be, that it would seem that Dushratta believed that reverence for the gods was acceptable to the Egyptian monarch, and also that such an outlook represented a state of affairs to which Dushratta had no hesitation in referring.

Some of these references are given :—

- W.16.FP.4. “Tisub, the Lord has given it into my hand and I have smitten it.” (Hatti, which had been hostile.)
- W.17.FP.5. (14) “May the gods permit this our friendship to prosper.”
 (15) “May Tisub, the Lord, and Ammon establish it as it is now for ever.”
 (24) “May Istar and Ammon grant a fulfilment to the wish of my brother.”
 (75) “May Tisub, the Lord, and Ammon escort the messengers whom we ourselves send, that they may accomplish their purpose (or reach their goal), and may they (things ?) be ever as they are now.” “As we have friendship now, so may we keep friendship for ever.”
- W.18.FP.6. (25) “May Bilit (Queen of heaven and earth) from my land and Ammon the god . . . of my brother, grant that there be an answer to the prayers (wishes) of my brother.”
 (19) “My brother imagined that I was somehow angry with him. Ah! may that never be. May Tisub, the Lord, never permit that I should be angry with my brother.”
 (35) “As people (humans) love the sun-god (Samas) even so we . . . the gods. May they so direct us, and (may they) love (us) for ever with (their) whole heart.”
- W.19.FP.7. (13) “I will give my daughter as a wife to my brother, whom I love. May Samas and Istar go before her. (18) May Samas and Istar give to my brother rich blessings and pure joy.”
 (32) “May my gods and the gods of my brother protect them.”

W.20.FP.8. (13) "The decision of Istar of Nineveh, the queen of all (lands) the earth. 'To Egypt, the land which I love, I will go. Send me to it.' Now I have sent her and she is gone."

(18) "In my father's time Istar, the Queen, was taken to that land, and when she stayed there formerly people held her in high esteem. Therefore let my brother honour her ten times more than before. Let my brother honour her, and so arrange it, that she return in joy. May Istar, the queen of heaven, protect my brother and myself 100,000 years. May the Queen (of heaven) give us both great joy, and so shall it be well with us."

In these letters, which are addressed to Amenophis III, it is perfectly clear that Dushratta recognised various gods, and did not hesitate to mention the name of the Egyptian Sun-god (Samas), together with the names of others such as Istar, Tisub, Ammon, and Bilit. Amenophis III died just about the time that the messenger arrived with the letter, W.20, from Dushratta, and the messenger returned to Mitanni with news of the death of the king.

What happened after the death of Amenophis III it is very difficult to tell. If there was a co-regency, and Amenophis IV reigned jointly with his father during the latter's declining years, it is very curious that a quarry inscription at Tell-el-Amarna should bear the name of Queen Tiy only. Queen Tiy, evidently on the death of Amenophis III, took upon herself to send diplomatic messages to Dushratta, to which messages he replies, quoting Queen Tiy's words:—

"Now thou hast spoken to Gilia (the messenger) 'say to thy master, Mimmuria my husband kept friendship with thy father, and sent the (Akku) (pledge?) which he preserved, and never broke his friendship with thy father, and the embassies which they sent were not interrupted. (There was no breach in diplomatic relationship.) Now, however, do not forget thy friendship with thy brother Mimmuria (Amenophis III). Make Naphuria (Amenophis IV, Nefer-Kheperu-Ra, Akhenaten) great and protect him, and send ambassadors of joy and do not let them fail (be broken off).'" (W.22.FP.9.)

Such was the message which Queen Tiy sent to Dushratta, and to which he replied.

It is not certain that Queen Tiy actually did reign as sole regent, and from these letters it would appear that she did not.

It is admitted that Queen Tiy may have taken a leading part in many affairs of state, in the latter years of Amenophis III, but it seems evident that Amenophis IV (Akhenaten) had already begun to make *his* influence felt, even before the death of Amenophis III.

On the death of Amenophis III there was a complete change of outlook, and here it is maintained that this change took place immediately after his death.

It is of the greatest importance to notice that in the letter which Dushratta sent in reply to Queen Tiy (W.22.FP.8) all reference to the gods, which was so marked a feature in his earlier letters, now entirely disappears.

No gods are mentioned in this letter, not even Samas.

It is evident that Dushratta was anxious to continue the alliance with Egypt, and was determined to give no offence, now that the new king's religious policy had come into being.

This statement cannot be regarded merely as an argument from silence, for in the later letters addressed to Akhenaten himself, viz., W. Nos. 21, 23, 24,

FP. Nos. 11, 12, 10, "the guidance and blessing of the gods," to which frequent reference is made in the letters to Amenophis III, is carefully avoided.

In letter W.21.FP.11, which Dushratta addressed to Akhenaten, as a letter of congratulation on his accession, one would expect to find some references to the blessings of the gods, just as we find them in letter W.19.FP.7, which speaks of divine blessings upon the king, and the princess whom Dushratta sent to Egypt.

This letter, W.21.FP.11, is of considerable length, and in it Dushratta relates what have been the relations between Egypt and Mitanni in the past. He dwells upon the incident of the sending of his (Dushratta's) daughter to Egypt, but even here he carefully avoids any mention of the gods in this connection. This is very curious when this passage of the letter is compared with letter W.19.FP.7.

Dushratta lays great emphasis upon the friendship between Nimmuria (Amenophis III) and himself, and tells of his great sorrow when he heard of Nimmuria's death. He declares, however, that "when Naphuria (Akhenaten), the great son of Nimmuria by Tiy, the great wife, entered upon his sovereign authority, then I said 'Nimmuria is not dead since Naphuria his great son, by Tiy (his great wife), reigns in his stead. As far as he is concerned (Naphuria) not a word of former (agreements) will be displaced.' Now I spoke in my heart 'Naphuria is my brother. He knows how his father and I loved each other, for Tiy, his mother, who was the great wife, and the Beloved of Nimmuria lives, and will bring the matter before Naphuria.'"

This passage has been quoted at length to show how carefully the mention of the gods is avoided in places where it might be expected. No appeal is made to the gods as witnesses by Dushratta, and no divine blessing is invoked upon the reign of Naphuria.

In letter W.24.FP.10 Dushratta also emphasizes his desire for continued friendship with Egypt, and bids Akhenaten consult his mother Tiy; but still no mention of the gods is made.

Letter W.23.FP.12 is placed by Sir Flinders Petrie (*Syria and Egypt*) as the last of this series.

This letter is also of considerable length, and touches on the same subject, while perhaps betraying something of impatience, discontent, and want of confidence.

Near the end of the letter there appears to be a reference to Ramman and Ammon.

The text is very badly broken at this point, and what remains is very uncertain. It is doubtful whether one may even read, as Winckler: Ramman u A-ma-a (nu).

No other reference is made to Ramman as a god in any of the other Amarna Letters, and the actual name only appears once in the name of a person, viz., Ramman-ni-ra-ri, king of Nukhashi, W.37.FP.36. Ammon is mentioned in:—

W.1.FP.13 written as A-ma-nu-um.

W.17(15).FP.5 ,, ,, A-ma-nu-um.

(24) ,, ,, A-ma-nu-um.

(76) ,, ,, A-ma-nu-um.

W.18.FP.6 ,, ,, A-ma-a-nu.

(These letters belong to the reign of Amenophis III.)

The reference in letter W.23.FP.12 seems so very uncertain that it is doubtful whether it is a reference to the gods at all. Therefore it is maintained that the conclusion to which these facts lead is as follows:—

It is possible that Akhenaten, before his accession, had already become notorious for his curious religious opinions. When he (Akhenaten) ascended the throne Dushratta, king of Mitanni, considered it a wise course to avoid mention of any of the gods, lest grounds for a breach with Mitanni should arise, since Dushratta, for his own safety's sake, and Tiye, for the sake of the reputation of Egypt, were both anxious that the alliance should continue. The words of Queen Tiye seem to betray some trace of nervousness for her son, and show that she was anxious that the allies of Egypt should keep faith with Akhenaten, despite his curious religious outlook.

That Akhenaten was already a monotheist at his accession, and that this fact was known even outside Egypt, seems to be the only explanation to account for the sudden and drastic change in the style and character of the letters which Dushratta sent to Egypt.

The letters from the kings of Kardunyash, Alashia, and Hatti provide no information with regard to religious matters in Egypt, but this is accounted for by the fact that these kingdoms were not bound by such close ties as those which held the kingdom of Mitanni to Egypt.

In the correspondence which was sent by the vassal chieftains of "the Syrian provinces" to Egypt, there is *no difference* in the mode of address in the case of letters sent to Amenophis III and Amenophis IV. The king is spoken of in each case as "the son of Samas" or even as "Samas" (the Sun-god). Expressions such as the following are also found in the letters addressed to Amenophis IV: "My god (or my gods), my Sun (Samas), the sun from heaven," etc.

The "gods" are referred to, Yitia (W.213.FP.96), for instance, speaks of "guarding the *gods* of the king," while the people of Dunip (W.41.FP.170) tell of "the gods of the king of Egypt"* being in their city.

All this is a clear indication that the religious movement of Akhenaten had little or no effect upon the Syrian portion of the Empire, and that even the "responsible chieftains" failed utterly to grasp the real meaning of the religious ideals of their king.

With Dushratta (father-in-law of the king of Egypt) it was different. He was bound by ties of kinship to the Egyptian royal house, and would be fully alive as to what was happening in the household of Amenophis III.

Thus it came about that when Akhenaten became Pharaoh, Dushratta in his correspondence both to the Queen Mother, and to Akhenaten, showed his knowledge of "the affairs of the day" by avoiding all mention of the blessing of the gods; perhaps it was not so much from conviction, as from a desire to win the favour of the new king.

JOHN ROBERT TOWERS.

[All transcriptions of names vary. The scribe wrote Nimmuria or Mimmuria.
The Greek Amenophis = the English Amenhetep.—Ed.]

(*This reading, "the gods of the king of Egypt," is a little doubtful.)

THE UNITY OF MAN

PART 3.

(Continued from p. 50. PART I was delayed for fuller treatment).

IN these days of brick and concrete it is interesting to remember that our houses were formerly built of wood even in places where stone was most abundant, and that this kind of building continued to the close of the sixteenth century.⁴² The most important part of the building operations was the fixing of the ridge-piece connecting the tips of the two gables, and this achievement was celebrated by a feast for the workmen. It is a time-honoured custom in Westphalia, where these half-timbered houses are still common, for the owner of a newly built house to give a "rearing feast" (*Richtfest*). The ancient Egyptians likewise were grateful to the men who had erected their tombs, for we learn from *Urkunden* IV 1055 that a sacrifice was offered for the workmen and foremen of the tomb, and a similar kindly feeling is expressed in *Urk.* I, 23: "Every one that has made this tomb for me, him have I contented."

Indeed, some of the closest parallels are to be found in burial customs and in arrangements for, and beliefs concerning, life after death. Tut-ankh-Amen, we may think, was buried with pagan splendour, but we realise that our ancestors were not so far removed in spirit from the ancient Egyptians when we read in Matthew Paris that the burial of Henry II was as follows: "He was clothed in royal robes, his crown upon his head, white gloves upon his hands, boots of gold-work upon his legs, gilt spurs upon his heels, a great rich ring upon his finger, his sceptre in his hand, his sword by his side."⁴³ And, though "we brought nothing into this world, and it is certain that we can carry nothing out," a liturgical comb would be buried with a bishop in the eleventh century—the same comb with which he had smoothed his beard before approaching the altar,⁴⁴ whilst an abbot of Westminster when he died was vested as for Mass with gloves, rings, and other ornaments, and with his pastoral staff. For comparison with the extraction of the viscera and their separate preservation in canopic jars, the following instances may be selected: the body of Eleanor of Castile, wife of Edward I, was buried in Westminster Abbey, but her heart went to the Black Friars, whilst Lincoln Cathedral had her viscera and effigy; the body of Prince Arthur, eldest son of Henry VII, was laid to rest in Worcester Cathedral, his heart at Ludlow.

It was the pious wish of every devout believer in Osiris to be buried at Abydos, though many had to content themselves with an empty tomb or a stele at this holy sepulchre. For example, Khenti-em-senti landed at Abydos, after discharging an important mission farther south, and set up a stele there.⁴⁵ Ikhnofert likewise took advantage of an official journey to Abydos to erect a tomb there, and allowed Minhotep, a member of his suite, to set up a stele in it.⁴⁶ Similarly, Richard de Beauchamp, the trusted friend of King Henry V, obtained leave from his sovereign in 1408 to visit the Holy Sepulchre; he

ultimately performed his vows, and set up his arms on the north side of the temple.⁴⁵ Edward I and Robert Bruce were both prevented by the same reason from visiting the Holy Land, and each left directions for his heart to be sent there at death.

The concern for burial in ancient Egypt and the material conception of the hereafter are repugnant to modern taste, but there was a similar preoccupation with death in comparatively recent times, whilst in the early Middle Ages "a coarse materialism ran through the whole fabric of religion," and "the future life was imaged in the strongest, coarsest colours of the senses."⁸¹ Many illustrious Englishmen ordered their tombs in their lifetime. King Henry V saw to the devising of his own tomb, and for his burial "his body was embalmed and cired and laid upon a royal carriage, and an image like to him was laid upon the corpse." Twelve years before his death Henry VI spent many hours in the Confessor's Chapel, and, having at last with difficulty selected a place, commanded a mason to be called to mark the spot.⁴⁸ In the lifetime of Henry VIII a contract was made with Torrigiano for a tomb in Henry VII's Chapel for the King and Queen Catherine of Arragon, which was to be larger than that of the founder.⁴⁸

Many and varied are the persons portrayed on Egyptian tombs and steles such as parents,⁴⁶ grandparents,⁴⁹ children, grandchildren,⁵⁰ nurse,⁵¹ friends,⁵² and even a favourite dog;⁵³ it is quite usual to see a married couple's entire progeny, including those who died in infancy, on Elizabethan and Jacobean tombs. Throughout the ages the artist has wished to be associated with his work: the maker reserved himself a corner in a fresco of Ptah-hotep's tomb;⁵⁴ in the west window of Winchester College Chapel kneels William Wynford, a master mason, in company with the master carpenter and the clerk of the works to William of Wykeham;⁵⁵ and in a thirteenth-century miniature of the Last Judgment the illuminator himself—William de Brailes—is the first of the Elect to be received into Paradise.⁵⁶

Our epitaphs are no less charged with posthumous vanity than the Egyptian passwords for a favourable judgment, and, allowing for differences in phraseology, the moral code, the virtues lauded, and the hyperbole are very much the same. Ruz-ahau, for instance, was "great in his city, splendid in his house, the great pillar of his family";⁵⁷ Sir John Smith, *d.* 1475, was "... a good householder, a fine man, large in alms, he did worship to all his kin, all the fellowship was the merrier that Sir John was in. For charity say a Pat 'nos' Ave."⁵⁸ (*Cf. Urk.* I, 10: "All those who see this tomb may they pray God for me in this.") The Egyptians liked to compare themselves with their gods: Rutch-ahau was "Thoth in judgment, the image of Ptah, the equal of Khnum"; Rekhmara was "Thoth in all things."⁵⁹ Similarly, Lady Cope D'Oyley, *d.* 1633, was "Rebecca in grace, in heart an Abigail, in works a Dorcas, for the Church a Hanna, and to her spouse Susanna; prudently simple, providently wary, to the world a Martha, and to Heaven a Mary."⁵⁸ Antef, son of Sent,⁶⁰ "was remembered by his happy deeds—'Would that the world were full of his like!' was said of him by the people—he was bright of face to his inferiors, doing good to his equal." (Antef, son of Mait,⁶¹ "respected the great"); he was "the respecter of the hungry and the poor, open-handed, one who did not veil his face" (evade suppliants); another Antef⁶² was "the husband of the widow, the father of the wretched, the asylum of the orphan," whilst Ruz-ahau "loved good and hated evil; no lie came forth from his mouth, no evil was wrought by his hands."⁵⁷ A parallel for this composite epitaph may be found in one

dated 1623 of "Will Burgoin, a squire by descent, whose death in this world many people lament; the rich for his love, the poor for his alms, the wife for his knowledge, the sick for his balms. Grace he did love and vice control, earth hath his body and heaven his soul."⁵⁸ Prince Antef's epitaph insists on its veracity: "These are my qualities, those that I really have; it is not just an arrangement of words."⁶² If in some cases the deceased, like the Player Queen in Hamlet, "doth protest too much methinks"—and certainly the phrase *in mes*, (it is indeed) came to mean untruth—many had at least recognised the call of four of the Seven Corporal Works of Mercy:⁶³ Ruz-ahau "gave bread to the hungry, beer to the thirsty, clothes to the naked,"⁵⁷ and Antef, son of Mait, "buried the aged."⁶¹ Gratitude to friends and patrons finds similar expression: Antef, son of Sent, "was steadfast and loyal to his benefactor"; "he was my friend, faithful and just to me," said Mark Antony of Julius Caesar.⁶⁴ "He made me great, he advanced my place . . . he gave me every function that I had possessed from the time of his father," said Thetha of two kings.⁶⁵ Adam of Usk used imagery of an Egyptian ring in expressing his gratitude to Thomas Arundel, Archbishop of Canterbury: "He was the virtue, the lamp, the wisdom of the people, the torch and delight of the clergy, and the staunch pillar of the Church of the Christian faith, who gave me the two good livings of Kempsey in Kent and of Merstham in Surrey."⁶⁶ Even a comparatively recent epitaph such as George Canning's in Westminster Abbey may be matched in Egyptian by selecting passages from several inscriptions. Canning, who died in 1827, was "endowed with a rare combination of talents, an eminent statesman, an accomplished scholar, an orator surpassed by none. . . . He successively filled important offices in the State, and finally became First Minister of the Crown, in the full enjoyment of his Sovereign's favour and of the confidence of the people." Now Rekhmara was "knower of knower in all crafts, clever in all undertakings, skilled in bygone affairs, and the condition of yesterday caused him to know to-morrow."⁶⁷ Antef, son of Sent,⁶⁰ had "reached the limit of knowledge in his affairs" and "was skilled of speech against the narrow of heart"; Sa-Menthu was made "grain registrar in the South and North, scribe of the great harem, royal scribe and chief of works in the entire land":⁶⁸ one Amen-hotep's "love was with all men and his favour was established in the Palace."⁶⁹

As these inscriptions show, the enumeration of moral virtues did not exclude the mention of worldly honours in ancient Egypt or in more modern times. Few Egyptian epitaphs yield such complete biographies as does that of Sa-Menthu; most record some special incident, like Minhotep's, and one can but regret that more were not like "Mr. William Canning's, the richest merchant of the town of Bristow. Afterwards chosen five times Mayor of the said town for the good of the commonwealth of the same. He was in order of priesthood seven years and afterwards Dean of Westbury and died . . . 1474, which said William did build within the said town of Westbury a college. . . . The said William did maintain by space of eight years: 800 handy craftsmen, besides carpenters and masons every day: 100 men. Besides King Edward IV had of the same William 3000 marks for his peace to be had in 2470 tons of shipping. These are the names of his shipping with their burthens. . . ."⁵⁸ We may, however, note that Amen-hotep "entered into the Palace when he was in private so as to behold Horus in this his house,"⁷⁰ and King Men-khau-Ra brought up Ptahshepses "among the royal children in the palace of the King within his harem, more agreeable was he to the King than any other child."⁷¹ Similarly, the Marquis of Exeter, according to the Regulations for the Household of Henry VIII, "was the only

person, besides the ministers in attendance, who had the privilege of entering the King's Privy Chamber, 'being the King's near kinsman, and having been brought up as a child with His Grace in his chamber.'"⁷² Ptahshepses also mentions that "His Majesty allowed him to kiss his feet, and did not make him kiss the ground," an honour that was perhaps somewhat comparable with "the special licence granted to Richard Verney by Henry VIII to wear his bonnet at all times and in all places, as well in the King's presence as elsewhere."

"The early belief that the dead lived in or at the tomb, which must therefore be equipped to furnish his necessities in the hereafter, was one from which the Egyptian has never escaped entirely."⁷⁴ Breasted has drawn a vivid picture of the communion between the living and the dead at "the earliest Feast of All Souls."⁷⁵ No less eloquent of a persistence of the belief in the nearness of those who have "departed in peace"⁷⁶ to "those who are still on earth" is the procession to the cemetery with wreaths and greenery in the Roman Catholic parts of rural Germany on All Souls' Day. There are records in the Old,⁷⁷ Middle,⁷⁸ and New Kingdoms⁷⁹ of arrangements for offerings and services after the testator's death, and many O.K. texts are charged with the fear of misappropriation by a priest or of depredations by a private person; in these texts the owner of the tomb "cursed him in living and cursed him in dying" with threats of occult punishment by himself on earth,⁷⁹ and of an unfavourable judgment at the tribunal of Osiris after death. It has been pointed out, remembering the curses in deeds of the High Middle Ages, that these imprecations do not logically exclude the intervention of effective jurisdiction,⁸⁰ whilst Sir Samuel Dill quotes from Gregory of Tours the story of a departed spirit who carried a taste for good wine beyond the grave, and who took prompt measures to maintain the standard of his supply.⁸¹

There was indeed but too good reason throughout the dynasties for uneasiness about the piety of posterity and the upkeep of offerings. Mud was substituted for ointment in jars;⁸² tomb robbery was rife at all times, and was not, by the way, peculiar to Egyptian burials; Sahura took for Persen the allowance of loaves and oil that had served for Queen Neferhotep.⁸³ There are, moreover many protestations of innocence, such as the following: "I built this tomb of new material, I did not take any one else's property for it";⁸⁴ "I made this tomb on the side of Amentit in a pure place, where there was no other tomb";⁸⁵ whilst Hepzefi protested that he was only disposing of the property of his paternal estate,⁸⁶ and Amenhotep implored the priests and stewards not to covet his provisions, for he had not made mention of more than his own belongings, and had been a just man on earth, who had cheated none other of his possessions."⁶⁹

The distrust of executors was a common sentiment in later times, and was not peculiar to ancient Egypt. It is expressed in the inscription on a glazed tile at Great Malvern dating probably to about 1450,⁸⁷ and elsewhere, whilst Stow in his *Survey* notes the charitable actions of famous citizens "for the most part done by them in their lifetime. The residue left in trust to their executors, I have known some of them hardly (or never) performed; therefore I wish men to make their own hands their executors, and their eyes their overseers, not forgetting the old proverb:—

'Women be forgetful, children be unkind,
Executors be covetous, and take what they find;
If anybody ask where the dead's goods became,
They answer, So God me help, and holy dame, he died a poor man!' "⁸⁸

And, finally, the most conspicuous monument in the church of Sandon, Staffs., is one to the memory of Sampson Erdeswicke (died 1603), which he designed and executed in his own lifetime "to prevent the neglect of executors."⁸⁹

Allowing for differences in phraseology, the arrangements for the endowment of temples and the provision of services for the dead were much the same in ancient Egyptian and in medieval times, and *ka* priests and chantry priests had similar duties. "Truly masses for the soul and mass priests are deep down in human nature."⁹⁰ When Amenhotep III's new temple, called "United with Ptah," had been "constructed in beauteous fashion, he appointed *uab* priests and prophets of the children of the magnates of Memphis, and appointed fields and cattle, field-labourers and herdsmen, from the spoils that he had brought back from every land; all the offices of this temple his Majesty filled right well."⁶⁹ Much in the same fashion were abbeys, monasteries, and collegiate churches staffed and endowed.⁹¹ The Chief Steward Amenhotep's complicated bargain with his Royal master,⁶⁹ whereby he appointed property by written deed out of his fields, his serfs, and his cattle, in all 430½ acres, on behalf of the Pharaoh's statue, was in essence a provision for a lector priest for himself, and may thus be compared with medieval arrangements such as the following: In 1315 John, son of Reginald de Grey, obtained a licence for the alienation in mortmain of thirty acres of land to the prior and convent of St. Bartholomew's to find a chaplain to celebrate daily in the chapel of his manor of Portpool (now Gray's Inn Chapel) for the souls of himself, his ancestors, and all Christians;²⁰ Edward III's master mason left his property to his wife Katherine on condition that she employed two chaplains to celebrate in the church of St. Magnus at St. Mary's altar for the souls of Margaret, his late wife, his parents, Roger and Marian, King Edward III, Sir John Beauchamp, and others.⁴³

Antef, son of Mait,⁶¹ "made a contract with a lector priest to perform service in the tomb and to recite the litany to the *ka* priest at every festival of the month and of the half month, so that his name might be good and his memory endure unto this day." The first care of a medieval testator, after commending his soul to God, the Blessed Virgin, and the saints, was to provide for his burial either within or without the church, and then to arrange for funeral and memorial services, usually the "month's mind," and for periodical anniversary services.⁹²

There is abundant evidence of the endurance of racial types: a wooden effigy of a high official of the IVth or Vth dynasty that was found in a tomb at Sakkara was named the Shêkh-el-Beled, or Chief of the Village, by the finders because of its striking likeness to the shêkh of the neighbouring village. Some of the terracotta heads of foreigners found at Memphis,⁹³ the majority of which may be dated to 500-300 B.C., might be portraits of living people—the Syrian or Jewish trader and the Sumerians might be engaged in trade and finance in any modern city—whilst "the persistence of the type of Akhenaten in Egypt" has been noticed recently.⁹⁴ It is, therefore, not surprising to find that "men's little ways" have been equally enduring. Egyptian soldiers looked forward to returning to their homes and relating their exploits to their wives,⁹⁵ and similarly any survivor of Agincourt would "yearly on the vigil feast his neighbours . . . strip his sleeve and show his scars" and "remember with advantages what deeds he did that day."⁹⁶

Unofficial history has, indeed, always been written in the same way, thanks to that irresistible urge in human beings. "The tomb of Khnumhotep . . . bears on its walls among the beautiful paintings which adorn them the scribblings of 120 generations in Egyptian, Coptic, Greek, Arabic, French, Italian, and

English. The earliest of these scrawls is that of an Egyptian scribe who entered the tomb-chapel over 3000 years ago and wrote with reed-pen and ink upon the walls these words: 'The scribe Amenmose came to see the temple of Khufu and found it like the heavens when the sun rises therein.' " 97 A tree in the woods at White Down, Surrey, bears a neatly carved inscription in its bark, "Prisner (*sic*) of War, 1919," above the carving of a German miner's spade and pick; with a sure feeling for history, troops of the Rhineland Army of Occupation carved their regimental arms in the "Hall of Ancestors" at Schloss Burg, in which the heraldic trees of former owners had been traced back to Adam.

In conclusion, I could quote no better instance of the essential unity of man throughout the ages than the following extract from an account in *The Times* of recent excavations at Sakkara:—

"On the floor of one of the rooms to the north of the colonnade . . . was found a letter, probably of the VIth dynasty, as with it were fragments of accounts of the building of the Pyramids of Merenre and Pepi II. The letter is on papyrus and is a complaint to the Wazir's office from the officer in charge of troops at Tura, near Cairo, that the men under him had been sent to receive their clothing and had been kept waiting for six days before the issue was made. This letter, 45 centuries old, from the Tura company commander, has a curiously modern ring to anyone who has had experience of an orderly room or a quartermaster's office. On a wall near by is the record left by a tourist, eleven centuries before Christ, who stated in a fair round hand that he had given himself a holiday and had come to see the wonders of Sakkara, after having spent several years in campaigns of which he was the only survivor of his troop. It is an interesting coincidence that the Antiquities Department, when recently clearing an altar in a little-used temple at Sakkara, found the roughly cut inscription of a trooper in the Australian Light Horse, who, recording the date of his visit, on leave after the Armistice, went on to say that he was the sole member of his squadron who had come scatheless through the campaigns of Gallipoli, Egypt, and Palestine. Ancient Egyptian, in 1100 B.C., and Antipodean Anglo-Saxon in A.D. 1919, having gone through similar experiences, felt impelled to leave for posterity almost identical records." 98

"The whole world kin" indeed, or, as an ancient Egyptian would have said, "Skilled in bygone affairs, the condition of yesterday causes me to know to-morrow." 65

L. B. ELLIS.

REFERENCES.

- ⁴¹ Westlake, *op. cit.*, p. 473.
- ⁴² S. O. Addy, *The Evolution of the English House*, p. 107.
- ⁴³ Lethaby, *Westminster Abbey and the King's Craftsmen*.
- ⁴⁴ Humann, *Die Kunstdenkmäler der Münsterkirche zu Essen*.
- ⁴⁵ B.M. Sculpt. 574 (146); *Hierog. Texts* II, pl. 9.
- ⁴⁶ B.M. Sculpt. 202 (237); *Hierog. Texts* III, pl. 11.
- ⁴⁷ *Dict. Nat. Biog.*
- ⁴⁸ Westlake, *op. cit.*
- ⁴⁹ B.M. Sculpt. 568 (189), 573 (156); *Hierog. Texts* II, pl. 4 and 6.
- ⁵⁰ B.M. Sculpt. 579 (129); *Hierog. Texts* II, pl. 15.
- ⁵¹ B.M. Sculpt. 573 (156), 143 (185); *Hierog. Texts* II, pl. 6 and 44.

- ⁵² B.M. Sculpt 571 (190); *Hierog. Texts* II, pl. 16.
- ⁵³ B.M. *Hierog. Texts* II, pl. 6.
- ⁵⁴ E. E. F., *Ptah-hotep*, p. 29, pl. xxxii. See also *Zeitschrift*, xxxi, p. 97; xxxii, p. 126; xxxviii, p. 107; xlii, p. 128.
- ⁵⁵ A. Hamilton Thompson, *Cathedral Builders of the Middle Ages*, in *History*, July, 1925.
- ⁵⁶ *Chester Beatty MS.* 38.
- ⁵⁷ B.M. Sculpt. 159 (96); *Hierog. Texts* I, pl. 47.
- ⁵⁸ Ernest R. Suffling, *Epigraphia*.
- ⁵⁹ *Urk.*, iv, 1074.
- ⁶⁰ B.M. Sculpt. 581 (197) and 562 (141); *Hierog. Texts* II, pls. 23 and 24.
- ⁶¹ B.M. Sculpt. 1164 (134); *Hierog. Texts* I, pl. 55.
- ⁶² Louvre C. 26 (Maspero, *Études de mythologie et d'archéologie égyptiennes* I, p. 45, and *Zeitschrift*, 1879, p. 51).
- ⁶³ The Seven Corporal Works of Mercy are derived from *Matt.* xxv, 35-6 and *Tobit* i, 16-17. The seventh Work (Burying the Dead) is from the latter source.
- ⁶⁴ *Jul. Caes.*, Act iii, 2, 1, 90.
- ⁶⁵ B.M. Sculpt. 614 (100); *Hierog. Texts* I, pl. 49.
- ⁶⁶ Adam of Usk, *Chronicles*, quoted in *Fourth Annual Report* of Friends of Canterbury Cathedral, Jan., 1931, p. 39.
- ⁶⁷ *Zeitschrift*, 60, 1925, p. 73.
- ⁶⁸ B.M. Sculpt. 828 (145); *Hierog. Texts* II, pl. 21.
- ⁶⁹ *Tarkhan* I, p. 34.
- ⁷⁰ *Tarkhan* I, p. 33.
- ⁷¹ B.M. Sculpt. 682 (32); *Hierog. Texts* I, pl. 11.
- ⁷² Lady Cecilie Goff, *A Woman of the Tudor Age*, 1930.
- ⁷³ A grandee of Spain has the right to perform a ceremony in which he makes a speech to the King about the services of his ancestors, then puts on his hat and sits down in the King's presence. His wife may sit on a footstool in the presence of the Queen. (He does not exercise this privilege every time!)
- ⁷⁴ Breasted, *Development of Religion and Thought in Ancient Egypt*, p. 51.
- ⁷⁵ Breasted, *op. cit.*, p. 264.
- ⁷⁶ Sa-Menthui (note 68). For "passed in peace" meaning "died" see Piehl in *Sphinx* II, 135.
- ⁷⁷ *Urk.* I, 11-15, 29-30, 35, 36.
- ⁷⁸ Hepzefi and Antef, son of Mait.
- ⁷⁹ "The crocodile against him in the river, the serpent against him on land" (*Urk.* I, 23), and "I will seize him like a wild fowl" (*Urk.* I, 116, also 90, 122, and 142. See Sottas, *La préservation de la propriété funéraire dans l'ancienne Egypte*, 1913. (*Bibliothèque de l'école des hautes études*, 250e. fas.)
- ⁸⁰ Moret et Boulard, *Donations et fondations en droits égyptiens*, in *Rec. de Trav.*, XXIX, p. 87, note 1.
- ⁸¹ "A noble citizen of Tours dying childless, left the Church his heir. His widow attended regularly, for a year, the masses offered for his repose, and always provided a sextarius of the famous wine of Gaza for the oblation. But, as her attendance became less regular, the subdeacon . . . substituted for the famous vintage a common wine of the harshest and roughest flavour. 'It pleased God,' says the narrator, 'to reveal the fraud. The departed appeared to his wife and complained that all his labour in this world had been in vain, since in the oblation

he found only a taste of vinegar'!" Dill, *Roman Society in Gaul in the Merovingian Age*.

⁸² *Diospolis Parva*, p. 15.

⁸³ *Urk.* I, 37.

⁸⁴ *Urk.* I, 71.

⁸⁵ *Urk.* I, 50.

⁸⁶ Breasted, *Ancient Records*, § 552 (Third Contract).

⁸⁷ "Think man, thy life may not ever endure;
That that thou dost thyself, of that thou art sure.
But that that thou keepest unto thy executor's share,
If ever it avail thee, it is but aventure."—J. G. Nichols, *op. cit.*

⁸⁸ Stow, *op. cit.*, p. 105.

⁸⁹ *Antiq. Journal* X, No. 2, p. 158, April, 1930.

⁹⁰ Petrie, *Religious Life in Ancient Egypt*, p. 166.

⁹¹ Petrie, *Ibid.*, p. 169.

⁹² J. G. Taylor, *Our Lady of Batersey*, p. 37. The "month's mind" was a memorial feast and service held one month after a death. These "minding days" were of great antiquity, and were a survival of the ancient Norse *minne* or ceremonial drinking to the dead. It is of interest to note the survival of this pagan custom in R.C. dioceses of Germany, in the form of the *Johannisminne*, the drinking of consecrated wine on St. John the Evangelist's Day, 27th December, a custom that was specially sanctioned for German dioceses. The *shrad* is held in India a month after a death.

⁹³ *Memphis* I, pl. xxxv-xliv, pp. 15-17.

⁹⁴ *J. E. A.* XVI, 1930, pl. iii, p. 3.

⁹⁵ *Zeitschrift* 39, p. 118-19.

⁹⁶ *King Hen. V*, Act iv, 3.

⁹⁷ Newberry, *Benihasan I*, pl. xxxviii, 3, quoted in Breasted, *Religion and Thought*, p. 271.

⁹⁸ *The Times* (Weekly Edition), 21st January, 1926.

REVIEWS.

Egyptian Temples. By M. A. MURRAY. 8vo. 246 pp., 64 pls. 1931. 12s. 6d. (Sampson Low.)

To everyone the attraction of Egypt lies mostly in the great temples, which are the only remains of the architecture ; they are the examples of great boldness of design, ingenuity, and of most delicate sculpture. The neglect of precautions for permanence is accounted for by the Indian principle of merit ; the virtue accrued from the construction is not lost by destruction, so conservation is little regarded. This explains how each builder remorselessly used up the works of his ancestors. The only funerary temple not quarried away is the last one that was built.

The accidents of age have been greatly increased by the wreckage of man. A roof that will last untold time, will suffer when opened up, and heat and cold play on its supports. Worst of all the destructions—because most useless—was when the Pashas of the last century blew up the pylons of Karnak with gunpowder, and left piles of loose blocks which no one cared to carry off.

Temples, so far, have been only described as features of the country, but here the views, plans, and descriptions follow, from place to place, without the distraction of other subjects. A better coherence is reached by comparing one class of work alone.

Some outline of the actual services, for which the temples were built, seems needed. The temple was not a daily slaughter-house, as in Jerusalem or Malta ; it was not a conventicle in ordinary times ; but the daily service of the god copied the domestic service to the master of a house, and began with incense, which remains as the first section of the Coptic service. Above all, to the people it was the place of the great festivals, as the mosque is now at the Tanta festival. The courts were decorated with flowers and greenery, everyone carried a bouquet, and the people's feast was laid in the house of the god. In late times even private dinner parties were held in the temple of Serapis, the metropolitan cathedral.

In this volume we can compare the temples of different ages, and for different purposes. Some scale to the plans would be a help. The descriptions are as full as a reader will wish, who does not desire the fullest detail. The whole seems almost free from the trifling errors which so often pervade compilations. On p. 12 the roof lights are not usually wider outwards, but widen inwards ; Hatshepsut had two tombs ; the Ramesseum stood back from the cultivation, which has advanced by the rise of soil ; and the papyri found at the Ramesseum were in a tomb of the Middle Kingdom, which had been covered over with later structures.

The Art of Egypt through the Ages. Edited by Sir DENISON ROSS. 4to. 80 pp., 265 pls. 1931. 42s. (The Studio.)

This work has been produced with a lavish amount of illustration, much of which has not appeared in the ordinary picture-books ; as such it must be

welcomed. Most of the plates are excellent, but unhappily about a quarter, including all the earliest, are printed impossibly dark, so that white stone seems black. For the Middle Kingdom the fine plates of *Staat aus dem Stein* are used, the best ever issued. The exquisitely graceful figures of the Tutankhamen tomb are well treated. One meets at intervals the refreshing sight of unfamiliar subjects.

The text of description is due to nine authorities, so the public will have confidence in the account. The certainty of such confidence makes it the more needful to avoid slips which will be copied elsewhere. In the Predynastic period there is no expression of the successive civilisations which differ so greatly, and which must have filled a far longer time than is suggested. The panelled walls of brick and stone are derived from wooden houses. Granite floors begin with Den, not with Khasekhemui (p. 13), who built the first limestone chamber. In the Middle Kingdom the usual muddle is perpetuated of entirely different heads being attributed to Amenemhat III. A first classification will be found in *Ancient Egypt*, 1929, 81. The invention of glass is attributed to Egyptians (46), whereas it was sporadically brought into Egypt thousands of years before its sudden exploitation after the conquest of Syria. Further, it is twice stated that no glass or glaze was used for inlay before the XVIIIth dynasty: the pectoral of Amenemhat III from Lahun has blue glass (or glaze), faded white. The temple of Edfu is not Saite, but of Ptolemy III at back, and the front illustrated is of Ptolemy IX. The Copts were not the inventors of the dome; it was used in the XVIIth dynasty, as well as the barrel vault. On plate 129B the fragment is of white limestone, not yellow jasper. On p. 78 a misprint places Khaliphs of Baghdad in the nineteenth century. Such slips are traps for the unwary.

The Alphabet, its Rise and Development from the Sinai Inscriptions. By MARTIN SPRENGLING. 8vo. 71 pp., 4 pls. 1931. 1 dollar. (University of Chicago Press.)

The position of Prof. Sprengling is moderately reasonable. He rejects altogether the fantasies of Grimme (*Anc. Eg.*, 1925, p. 88); he only accepts Cowley in part, he is critical of Leibovitch. After discussing the readings of all these in 24 pp., he launches out on his own interpretations. They are generally reasonable in result, but with many shaky points. For instance, in 351 he transposes signs. The frequent recurrence of *int* is rendered as a "gift"; but no guesser seems to have suggested that it is the name of Tanit, the Punic goddess identified with Astarte, and so with Hathor, the goddess of the temple from which these writings come. The whole of the material is in a difficult state, and hardly any example is complete. The most satisfactory is one from a mine translated "I am the miner Sahmilat foreman of mine-shaft four." The *arbo* "four" is confirmed by four strokes, made before the inscription.

After this account comes a chapter on the background of the subject, drawn from the Egyptian steles in Sinai. Next a comparison of the alphabets of Minean, Sinaitic, Phoenician, and Ras Shamra cuneiform. Also some world maps of alphabetic diffusion. But this is premature, as the material of the subject is not yet grasped. Of the Phoenician alphabet of 22 signs, which is here supposed to start from the Semitic signs of the XIIth dynasty, there are twenty known in Egyptian signs of the prehistoric and Ist dynasty. On looking at the Sinaitic not half of those signs could have started the Phoenician. So by the test of priority, and the much fuller agreement, the Phoenician is derived

from the Mediterranean signary of prehistoric times. The Sinaitic is really a jumble made by workmen, partly drawn from the old signary, and partly from the initial values of familiar objects.

An Introduction to Egyptian Religion. By ALAN W. SHORTER. 139 pp., 8 pls., and 24 line illustrations. 1931. 8s. 6d. (Kegan Paul.)

It is unfortunate when a young author begins his career in this manner. Instead of making his name first among his fellow scholars by careful and accurate work, Mr. Shorter has pushed into print with a book on religion—the most difficult of all subjects—addressed to beginners—the most difficult of all audiences. Mr. Shorter has also made the great mistake of talking down to his readers, and his condescending attitude is reminiscent of a young curate addressing a Sunday-school class, “And now, dear children, we will turn to so-and-so.” Mr. Shorter claims that, to understand the Egyptian religion, “it is not enough to be a first-rate archaeologist, scholarship is essential also.” He appears to apply the meaning of “scholarship” only to the knowledge of a language, but surely the more exact definition is “precise knowledge and critical appreciation,” and in this sense of the word Mr. Shorter’s book is lamentably deficient. The coarse and inaccurate drawings of the gods, the equally inaccurate account of some of the deities (*e.g.*, that Mut is depicted as a nude woman, and that Amon wears ostrich feathers), the poverty of the language counterbalanced by the wealth of italics and exclamation marks, show that Mr. Shorter has still a long way to go before he can write a “Religion without tears.” That such a book is needed is very certain; none know it better than those who have the training of students. A well-written book on the subject, giving the general facts without any overloading of detail would be welcome, but it must be done by someone who not only knows the Egyptian religion but is also widely read in other religions, has studied psychology, and has a deep and sympathetic knowledge of religious experience and the aspirations of the human heart. Such a writer has not yet been found; the literary pundit still holds the field and tries to keep the greatest of all subjects within the narrow limits of his own grammatical understanding of a few manuscripts and inscriptions.

M. A. MURRAY.

Metropolitan Museum of New York. The Tomb of Ken-Amun at Thebes. By N. DE G. DAVIES. 2 vols. 70 pp., 70 pls. 1930. (New York.)

When the names of Mr. and Mrs. de Garis Davies occur on the title-page as the author and artist of a book on ancient Egypt the student can be assured that here is a volume which will repay careful perusal and study of text and plates. Mr. Davies’ gift of lucid exposition is used to advantage in his account of the tomb, and more particularly in the description of the scenes. Every detail is carefully considered, and many obscurities in the meaning of the paintings are revealed by the light of the author’s vast knowledge of his subject. Though his remarks are always worth noting, he is at his best in his explanations of the various objects displayed in the scenes of daily life, especially the artistic output from the Pharaoh’s workshops and studios. His summary, however, of the religion of ancient Egypt is perhaps a trifle too severe: “Religious life lies in averting the annoyance of the gods and in humouring their predilections. Piety partakes rather of diplomacy than of loyalty; and as their ethics blossom out into precepts of conduct for the worldly wise, so their religion abounds in well-considered investments of devotion.” This is possibly true of the ancient Egyptian, but “the well-considered investment of devotion” is equally true

of many a follower of a modern religion. The plates show that Mrs. Davies keeps up her high standard of accuracy in draughtsmanship and colour. As a copyist of Egyptian paintings she is unequalled in reproducing the spirit which imbued the Egyptian artist as well as the figures and scenes which he portrayed. Mr. Hopgood's work is good, but suffers, as the work of almost any artist would suffer, by being placed beside that of Mrs. Davies. The tomb of Ken-Amun is extremely important artistically and archaeologically, and the publication is worthy of its importance. There is only one serious fault to be found with it; the two volumes differ so greatly in size that in a library it is difficult to keep them together.

M. A. MURRAY.

JOURNALS.

SYRIA. XI. Part 2.

THUREAU-DANGIN, F.—*Peintures Assyriennes de Til-Barsib*. These paintings have been carefully copied by hand, without restorations. The main scene is of the king on his throne with over two dozen courtiers and guards. Many of these are tribute bearers. The attendants wear ribbed gold earrings, like those of Hyksos found at Gaza.

PRZEWORSKI, S.—*Encensoirs de la Syrie*.—The most usual type is a circular bowl, with the carving of a hand holding it below. This is compared with the Egyptian form of a rod ending in a hand, which supports a conical cup. The form of fibula with a hand clutching the pin shows how readily an anthropomorphic ornament is applied.

MESNIL DU BUISSON, COMTE DU.—*Fouilles à Mishrifé-Qatna*.—This describes the ground plan of the palace, of which a model is photographed, containing 38 chambers and three open courts. In the foundation of the temple were jars containing bones of infants. Four valuable plates are given, containing the types of pottery in twelve sites, varying from the Vth to XXIInd dynasty in the Egypto-Palestine scale. This series of about 180 forms might form the base of a regular corpus if numbered by types. The special Copper Age type of Palestine agrees with the earliest of these stages from Tomb IV of Mishrife.

DUSSAUD, R.—*Quatre campagnes de fouilles à Byblos*.—This general review of M. Montet's work contains three new details. The foundation deposit jar, which is akin to the drab pottery with cordage pattern of the XIIth dynasty; a pendant with eight-pointed star of granulated gold work from Nihavend, which suggests that the star made in such work from Dahshur may be Perso-Elamite; and a top view of the Ahiram sarcophagus, showing the figures and lions.

Part 3.

DIEHL, G.—*Argenteries Syriennes*.—Figures of three spoons of the usual Byzantine type, with ribbed stems.

DUSSAUD, R.—*Haches a douille de type Asiatique*.—Here is a valuable series of the type of axe with spiked back (see figure on cover of this number).

Also a horse-bit with sphinx cheek-pieces, and a series of Luristan bronzes, with four pots of Luristan. In the *Bibliographie* are some painted vases of Alishar Hüyük, from 1600 B.C. to Greek times. A list of technical terms of pottery agreed on for English, French, and German is issued, including slip, wheel-finished, wash, glazed, burnished, matt paint, lustre paint, frit, and reserve slip. "Vernissé" is banished, but it does not seem that there is any definition for the usual black and red of Greek vases; "iron-black" and "iron-red" might be suggested.

Part 4.

VIROLLEAUD, C.—*Tablettes de Mishrifé-Qatna*.—This gives 31 pp. of transcription and translation of the inventories of temple property. There is an interesting field here of research on the names of weapons and ornaments, compared with those in other languages. In the first list is a *hurubbn* in the hand of the goddess, obviously the Hebrew and Arabic *harba*, a sword or spear. By comparison of all the instances it should be possible to get fair definitions of such words.

DE MANNEVILLE, E.—*Le Sanctuaire de Hal Tarxien a Malte*.—This is a review and summary of Sir Themistocle Zammit's *Prehistoric Malta*. Good illustrations of the monuments, spiral patterns and pottery, make this a convenient abstract. The carinated bowls of the Neolithic pottery are most like such bowls of the early Amratian.

XII, 1, 1931.

SCHAEFFER, F. A.—*Fouilles de Minet-el-Beida et de Ras Shamra (Prin-temps 1930)*.—The clearance of previous work is happily being run off, to ground which has been searched, a wise precaution. All the evidence, so far, is for the Mykenaeen date of the settlement: the influences are Aegean, Hittite, and Egyptian. A stele of Egyptian style bears the god Bail of Zāpunā adored by the royal scribe, intendant of the treasury of Māmi. In the court of the temple were fragments of life-size figures of granite and sandstone in Egyptian style; there had been also sculptures of the XIXth dynasty, wrecked by Turkish treasure-seekers.

VIROLLEAUD, CH.—*Déchiffrement des tablettes alphabétiques de Ras-Shamra*.—These are written in a new alphabet of cuneiform, adapted from the Sinaitic. By guessing at repeated words the key has now been found, and the language is Aramaic closely kin to Hebrew. The religious texts name Baal, Anat, and Astart, also the personifications of divine attributes, divine wisdom, and divine justice. These are very interesting as showing the same ideas as later, when Justinian dedicated his greatest buildings to divine wisdom and divine peace. The framework of these religious texts is of dialogues, between the gods, and of deities with Taphon, a glorified hero. [See also *Illustrated London News*, 20th Nov., 1930, for illustrations.]

NEUVILLE, R., et MALLON, A.—*Débuts de l'âge des métaux dans les grottes du désert de Judée*.—The Aeneolithic period is stated to be abundant in Palestine. Periods distinguished are Ghassulian, Tahunian, and Canaanian. The principal sites are Um Katafa, Teleilat Ghassul, and Um Qalaa in Wady Khareitun. Um Qatafa is mainly described; the large fan scrapers, and the thick cups with low handle, belong to site A of Bethpelet, the last before the Copper Age.

ROSTOVITZEFF, M.—*Bronze d'Anatolie, de Syrie, et d'Arménie*.—This study begins with figures on rein rings of harness, man and horse, from Boghaz-koy

and horse alone, evidently kin to the ass figures from Ur. Also figures of deities, deity between horses, and riding horse. The goddess and horses is looked on as the Oriental original, the source of which is unknown. [We may regard it as one of the many variants of the theme of a deity controlling wild nature: lions, bulls, horses, birds, etc. See *Decorative Patterns*, pls. i-iii.]

GJERSTAD, E.—*Swedish excavations in Cyprus*.—Palaeoliths are found on the island of Petra ton Limniti, Neoliths in Lapithos. The palace of Vouni, four miles S.W. of Soli, which is of the Vth century B.C., was excavated; it is on the Mykenaeian plan of building.

DUSSAUD, R.—*Sur les tablettes de Ras Shamra*.—This gives a translation of tablets stating the offerings to different gods. The god Dn-el or "justice of God" is supposed to be that named by Ezekiel, rendered as Daniel in xiv., 14, 20; xxviii., 3.

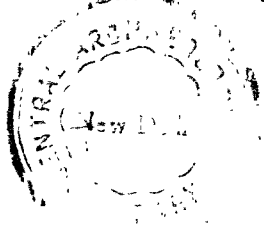
NOTES AND NEWS.

The excavations of the British School were resumed at Tell el Ajjul (Ancient Gaza) in the latter part of November. Soon the remains of large public buildings were found on the highest ground, with walls two or three times as thick as those of ordinary houses. These buildings had been burnt; lower down was another such building, also burnt; lower still, massive walls with casemate recesses. The founding of the second building was marked by a horse sacrifice in the foundation, and horses were eaten, as shown by the bones scattered around on the surface. This is certainly of the Hyksos age, by the type of pottery used in the oven. Further work in the cemetery has opened over a hundred tombs. The detail of the results will be described in our next number. This work has to be carried on from the small capital of the school, as no considerable help has been received, except from Sir Charles Marston.

We have to congratulate Dr. Margaret Murray on the title by which the University of London has recognised her great service to the teaching of Egyptology during more than thirty years.

INTERNATIONAL CONGRESS OF PREHISTORIC AND PROTO-HISTORIC SCIENCES.

"The British Organizing Committee desire to bring to the notice of Archaeologists the First International Congress of Prehistoric and Protohistoric Sciences which will be held in London from August 1st to 6th, 1932. The Congress will be divided into sections, the third of which deals with the Neolithic, Bronze, and Early Iron Ages in the Ancient World. Historical civilisations will only be dealt with in so far as the material is auxiliary to prehistoric studies, or is treated according to their methods. The British Organizing Committee cordially invite the co-operation of archaeologists engaged in research in Egypt and the Near East, more especially those interested in the relations of the Near East with the Ancient Mediterranean World and the area of the Caucasus and South Russia. Agenda and invitations will gladly be sent on application to the Secretary of the British Organizing Committee, Society of Antiquaries, Burlington House, London, W. 1."



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